	PUBLIC HEALTH, WELFARE & SAFETT		
	Exhibit No.		
Testimony in support of SB 336 to the Public Health, W	2-16-10	Z	
February 16, 2007	Bill No. 58 334	ماسوسین	

Todd Harwell, MPH

Chief, Chronic Disease Prevention and Health Promotion Bureau, Public Health and Safety Division, Department of Public Health and Human Services

Good afternoon Mr. Chairman, committee members, my name is Todd Harwell and I am the Chief of the Chronic Disease Prevention and Health Promotion Bureau, which is located within the Public Health and Safety Division of the Montana Department of Public Health and Human Services. On behalf of the Department I am testifying in support of SB 336. If I may, I would like to pass out a copy of my testimony and three reference articles that provide additional information regarding flavored tobacco products and marketing of these products. ¹⁻³

As you know, tobacco use including exposure to secondhand smoke is the leading cause of preventable death in Montana. Tobacco use costs Montana millions of dollars annually to address the morbidity and mortality that this addiction causes.

The vast majority of Montanans initiated smoking and the use of spit tobacco during adolescence. In 2005, 20% of Montana youth in eighth, tenth, and twelfth graders had smoked cigarettes in the past month, and 15% of Montana boys had used spit tobacco in the past month. On a positive note – we have seen a significant decline in youth smoking in Montana from 38% in 1999 to 20% in 2005, and now down to 17% in 2006.

The tobacco industry has used numerous strategies targeting youth to capture replacement smokers and spit tobacco users. Prior to the 1998 Master Settlement Agreement with the States, the industry was marketing their product to adolescents and young adults through advertisements in youth magazines, billboards nears schools, programs targeting college campuses and specific events such as county fairs, as well as baseball and rodeo. This marketing included tobacco sample giveaways, and youth oriented advertising using cartoon figures such as the smooth "Joe Camel," as well as promoting flavored products that are perceived as more desirable to new tobacco users. As a specific example, the United States Tobacco Company developed and implemented a strategy both accurately and deviously called the "graduation strategy." The goal of this strategy was to increase the number of new spit tobacco users by promoting starter products that had lower levels of nicotine, milder taste, flavorings to reduce the tobacco taste, and products that are easier to control in the mouth. An example of one of these

products is Skoal Bandits, which are packaged in a pouch and are flavored. Figure one, which is provided in my handout is a depiction that the United States Tobacco Company used to describe this strategy. The reference article in your handouts authored by Connolly provides more detailed information regarding the industry's activities to promote spit tobacco use. Of particular note are the disturbing quotes from tobacco company executives with regard to targeting these products to adolescents and young adults.

In 1998 the Master Settlement Agreement, an agreement between the tobacco industry and multiple State Attorneys General went into effect. This agreement prohibited the industry from directly or indirectly marketing their deadly products to youth. Since the Master Settlement Agreement became effective, the ever resourceful tobacco industry has developed new strategies to target Montana adolescents and young adults. R.J. Reynolds began producing candy, fruit, and alcohol flavored Camel, Cool, and Salem cigarettes. The article authored by Lewis and Wackowski in your handout provides visual examples of the packaging of these products, which obviously target youth. The strategy is similar to the United States Tobacco Company's "graduation strategy," but with a new devious twist. First, by incorporating flavoring, the product is more desirable to new inexperienced users, and once they initiate use and become addicted it is likely they will proceed on to the use of unflavored products. The second strategy was to package and market the product using cool "youth-focused" images. In 2006, 38 State Attorneys General reached a settlement with R.J. Reynolds to withdraw these products from the market due to the obvious violation of the Master Settlement Agreement of promoting tobacco products to youth.

The 2006 settlement was a major victory to protect the health of Montana youth. However, additional brands of flavored tobacco products are still being sold and marketed to Montana youth. SB 336 will ensure that these deadly products will not continue to be promoted and sold to children and adolescents in this State.

Opponents will say that prohibition of flavored tobacco products doesn't work. In this case it did. Opponents to this bill will also say that this law will prohibit the sale of the standard brands of non-flavored products such as Marlboro and Camel cigarettes. This is not true, as SB 336 clearly defines the flavoring additives.

Opponents to this bill, likely limited to tobacco industry representatives, will argue that the flavored tobacco products they produce and sell, such as individual cigarettes in lip gloss

containers, and multiple types of flavored spit tobacco, are not targeted to kids, but rather to young adults aged 18 to 24. When you hear testimony like this be cautious. The tobacco industry has purposefully hidden evidence and confused facts for many decades. It has taken legal proceedings to force the industry to admit that the direct use of their products and exposure to secondhand smoke causes premature death. I am hopeful that we will not have to wait more decades for the industry to acknowledge that they are targeting and promoting flavored tobacco products to youth. However, I am not going to hold my breath while the industry continues to take the breath away from Montanans who smoke and use spit tobacco.

I would like to thank Senator Lind for sponsoring this important legislation, and I strongly urge that you pass this measure. Thank you.

Reference:

- 1. Connolly, GN. The marketing of nicotine addiction by one oral snuff manufacturer. Tob Control 1995;4:73-79.
- 2. Lewis MJ, Wackowski O. Dealing with an innovative industry: a look at flavored cigarettes promoted by mainstream brands. Am J Public Health 2006;96(2):244-51.
- 3. Carpenter CM, Wayne GF, Pauly JL, Koh HK, Connolly GN. New cigarette brands with flavors that appeal to youth: tobacco marketing strategies. Health Affairs 2005;24(6):1601-1610.

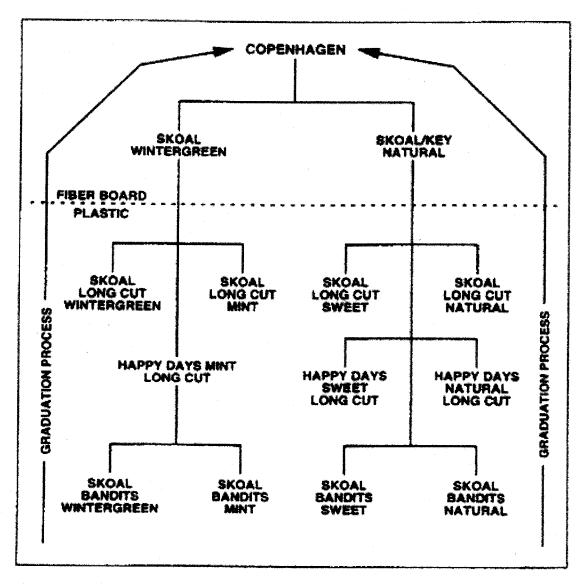


Figure 1 UST's "graduation strategy", as depicted in a UST document exhibited in the Marsee vs US Tobacco Company lawsuit. New users start with Skoal Bandits, progress to Happy Days brands or other Skoal products, and then "graduate" to Copenhagen

SPECIAL COMMUNICATION

The marketing of nicotine addiction by one oral snuff manufacturer

Gregory N Connolly

Abstract

Oral snuff is a form of smokeless tobacco that has been shown to cause oral cancer, gum disease, and nicotine dependence. Since 1970 use of oral snuff has soared among young males. I believe this increased use is a direct result of an industry advertising and marketing campaign that encourages young nonusers to experiment with low nicotine starter products with the intent of graduating new users up to higher nicotine brands as dependence progresses. This article reviews internal industry documents offered into evidence in a 1986 Oklahoma court case, tobacco and advertising industry trade literature, and advertising and promotional material that shows how one snuff manufacturer markets nicotine dependence to young people.

(Tobacco Control 1995; 4: 73-79)
Keywords: smokeless tobacco; marketing; nicotine addiction

Introduction

Oral snuff is a finely cut, processed tobacco which the user places between the cheek and gum. Nicotine is released from the tobacco and absorbed by the membranes of the mouth. In 1986 the US Surgeon General concluded that use of this product causes oral cancer, gum disease, and nicotine addiction. More recent research suggests that snuff use increases the risk of cardiovascular disease, including heart attack.²

In recent years, use of oral snuff has risen dramatically among young men. From 1970 to 1991, the prevalence of snuff use among men aged 18 and older rose from 1.5% to 3.3%; among men 18–24 years old, it increased more than eightfold from 0.7% to 6.2%, making this age group the heaviest users of the product among those surveyed.³ The 1990 Youth Risk Behavior Survey found that 24% of all white male high school students had used smokeless tobacco at least once during the past month.⁴ A 1989 National Collegiate Athletic Association (NCAA) survey of college athletes found a

This article is based on testimony presented by Dr Connolly to the Subcommittee on Health and the Environment, Committee on Energy and Commerce, US House of Representatives, 29 November 1994.

40% increase (from 20% to 28%) in smokeless tobacco use from 1985 to 1989. Among NCAA baseball players, an alarming 57% were users. There is new evidence which suggests that these increases are no accident, but the result of a sophisticated marketing campaign that developed, advertised, and promoted use of oral snuff starter products with low levels of free (un-ionised) nicotine as part of a graduation strategy that intended new users to move up to brands higher in nicotine as tolerance developed. The high nicotine brands are highly addictive and high in cancer-causing nitrosamines.

Two studies published in this issue of Tobacco Control confirm that the amount of nicotine available for uptake by snuff consumers varies systematically according to brand. 6,7 This paper will describe the evidence available which indicates how manufacturers manipulate free nicotine levels, the role of starter brands in one company's "graduation" strategy, and how advertising and promotions encourage experimentation and nicotine addiction among new users. The evidence presented here has been collected from a variety of sources, including documents offered into evidence in a 1986 Oklahoma court case, tobacco and advertising industry trade literature, Congressional hearings, and other sources.

Control of free nicotine

Oral snuff manufacturers control the nicotine levels delivered to their consumers by controlling the amount of total nicotine in their brands, the level of free nicotine that is available for uptake into the body, and, in the case of Skoal Bandits, the size of the dose by using portion packs of tobacco in a mouth bag. In the 1986 Oklahoma court case Marsee vs US Tobacco Company, the plaintiff's attorney discussed a 1981 document on US Tobacco Company (UST) stationery from Per Erik Lindquist, UST's Senior Vice President of marketing, to Barry J Nova, President of the Tobacco Division. The document explained why the levels of nicotine were controlled: "Flavorwise we should try for innovation. Taste and strength (nicotine) should be medium, recognizing the fact that virtually all tobacco usage is based upon nicotine ('the kick') satisfaction."8,9

Total nicotine is controlled through selection and blending of tobacco leaf. Levels of

Massachusetts
Tobacco Control
Program,
Massachusetts
Department of Public
Health, 150 Tremont
Street, Boston,
Massachusetts 02111,
USA
GN Connolly

free nicotine are controlled by adjusting the pH, which is done through fermentation, by adding alkaline buffering agents such as sodium carbonate and ammonium carbonate, or by altering moisture content. Free nicotine, which is formed as the pH of the tobacco increases, is rapidly absorbed across the membranes of the mouth into the body. ¹⁰ The two alkalinising chemicals just mentioned appear on the list of non-tobacco materials used as additives in moist snuff that the industry trade association, the Smokeless Tobacco Council, supplied to the US House of Representatives Subcommittee on Health and the Environment in April 1994. ¹¹

The Swedish Tobacco Company, which also manufactures oral snuff and owns the US snuff company Pinkerton Tobacco Company, intentionally controls the level of free nicotine. The company commented on its production process in a 1994 report, ¹² Smokeless Tobacco from Gothenburg (translated from Swedish): "In order to release the nicotine from the tobacco, the snuff is made slightly alkaline – sodium carbonate is added during the production process as this alters into bicarbonate."

The company's fact sheet entitled Sunsets innehåll¹³ [The content of snuff] further states (translated from Swedish): "Sodium carbonate (Na₂CO₃), which is active in increasing the pH level, makes nicotine more easily released from the tobacco and subsequently facilitates the uptake of nicotine through the mucous membranes of the mouth. The sodium carbonate is altered in the snuff into bicarbonate (NaHCO₃)."

In an October 1994 article in the Wall Street Journal,14 two former UST chemists were quoted on how the company apparently manipulates nicotine: "US Tobacco routinely adds chemicals to its snuff to deliver the free nicotine faster and to make the product stronger"-Larry Story (former US Tobacco chemist). "The fermentation process involves adding chemicals and, at the end, you add some more chemicals which increase pH too.... Without increasing the pH, you couldn't get nicotine release." - James C. Taft (former US Tobacco chemist). "It (Copenhagen) was brought up to a pH of 7.8 by adding more sodium carbonate and ammonium carbonate" - Larry Story.

Starter brands and the "graduation" strategy

If a new user starts with the standard high nicotine brands such as UST's Skoal Fine Cut or Copenhagen, a toxic response such as dizziness or nausea may occur. The novice is more likely to quit before tolerance to the toxic effects of nicotine develops. To respond to this problem and to expand its user base, UST developed low nicotine starter brands: Happy Days, Skoal Bandits, and Skoal Long Cut.

Happy Days was a loose, fine-cut tobacco with low free nicotine which was first introduced in the late 1960s. Evidence from the Marsee vs UST court case shows UST concern

with three design problems - "float", "lip burn", and "size of pinch" - that prevented new users from getting accustomed to the smokeless tobacco. 15 "Float" referred to movement of the tobacco around the mouth, which could possibly result in too quick a release of nicotine or poor contact with oral tissue. "Lip burn" could be caused by the chemical and physical irritation of the tobacco contacting the oral tissues. The size of the pinch is critical if a new user is to achieve a sufficient pharmacological response from nicotine but not one so high that it induces a toxic effect such as nausea. Based on these problems, UST embarked on the "Lotus Project" to develop a starter portion pack of tobacco product in a teabag-like pouch.

Three documents from the Marsee vs UST court case further elaborated on the strategy. In minutes from a 1968 meeting, LA Bantle, then a UST vice president and later company chairman and chief executive officer, stated: "We must sell the use of tobacco in the mouth and appeal to young people... we hope to start a fad." 18

In the same document Dr Word B Bennett, who was in charge of research for UST, summarised the meeting's recommendations, one of which was: "Develop new products. For example, artificial snuff – a consumable confectionery which would satisfy the snuff user". 16

Two later documents from 1972 further described the Lotus Project.15 The project was first developed by United Scandia International, a joint venture between UST and Swedish Tobacco Company. A memorandum of 2 June 1972 described the activities of two working groups, one from UST and the other from Swedish Tobacco. A second Lotus document, dated 18 July 1972, was the minutes of a meeting held at UST headquarters in which Bantle stated that he wanted a Lotus Project - smokeless tobacco in a portion pack for the US market - and instructed a UST task force to embark on this. As part of those minutes, the Lotus Project was described, and the target group was defined as "new users, mainly cigarette smokers, age group 15-35" The "strength" of the new product was termed "nicotine satisfaction", and the product was compared to UST's existing brand Happy Days. In 1983, UST introduced Skoal Bandits, which closely resembled the product described in the 1972 memorandum. This design controlled tobacco placement and the size of the dose. It also avoided the tobacco having direct tissue contact.

In 1984, UST introduced another new starter product called Skoal Long Cut, which further addressed these problems. ¹⁷ The Long Cut used larger pieces of tobacco and included a binding agent that allowed the user to pack the tobacco into a tight bolus, thus avoiding the "float". The bolus may also allow for a uniform, slow release of nicotine and may be less irritating to the oral tissue than conventional fine-cut snuff. Moreover, the bolus replaced the need for a mouth bag, which may not have been appealing to "macho" dippers.

ت پ

*

*

y,

*** *

جر مو

8

P

سر سر

)

. خ

* ·

٠ و

***** ;

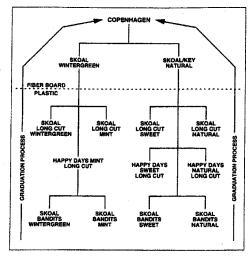


Figure 1 UST's "graduation strategy", as depicted in a UST document exhibited in the Marsee vs US Tobacco Company lawsuit. New users start with Shoal Bandits, progress to Happy Days brands or other Shoal products, and then "graduate" to Copenhagen

In addition, the mouth bag may have served as a barrier to nicotine absorption. Since 1984 UST has introduced an increasing variety of flavours of Long Cut. Today Cherry and Mint Long Cut are the two UST products most commonly given out as free samples, replacing Skoal Bandits as the sample of choice.

According to the 1972 Lotus memorandum¹⁵

There should be three products of three different tastes and strength of nicotine: a) High nicotine, strong tobacco flavor for consumer who presently uses tobacco in the mouth. Can this be accomplished by using present product of Copenhagen or Etna?...b) Medium strength of nicotine. Can this be accomplished by using a Happy Days product?...c) Low nicotine, sweet product. Can this be done by using present size Lotus?...Do we flavor this product with honey, chocolate or vanilla?

According to several sources described below, the company developed a strategy for new users to "graduate" up to higher brands over time. A document entitled *The graduation theory*, prepared by marketing consultants for UST, described the process:

New users of smokeless tobacco – attracted to the category for a variety of reasons – are most likely to begin with products that are milder tasting, more flavored and/or easier to control in the mouth. After a period of time, there is a natural progression of product switching to brands that are more full-bodied, less flavored, have more concentrated "tobacco taste" than the entry brand. 18

According to a 1983 article in Advertising Age, ¹⁹ "the new product is designed to hook consumers into what Mr [Barry] Nova [president of UST's Tobacco Division] called a 'graduation process' from Bandits to Skoal itself and then to Copenhagen, the company's strongest chewing [sic] tobacco."

In 1985, Jack Africk, Vice President of UST, explained the strategy in a company newsletter *Up to snuff*²⁰: "As far as our strategy for entering a new market is concerned – for each market there is a set of criteria which have been established, and must be met. Skoal Bandits is the introductory product, and then we look towards establishing a normal graduation process [emphasis added]."

Nova, who left UST in 1984, described the process¹⁴: "For people who haven't ever tasted [snuff], you'd of course begin them on a product that had a little tobacco taste, but wouldn't turn them off. The graduation [emphasis added] is to a more tobacco-y product... to a stronger product."

Despite the impressive documentation of the graduation strategy in publicly disclosed UST literature and public statements by current and former employees of the company, UST officially denies that it has used a graduation process. However, Ken Carlson, a division manager in UST's sales department

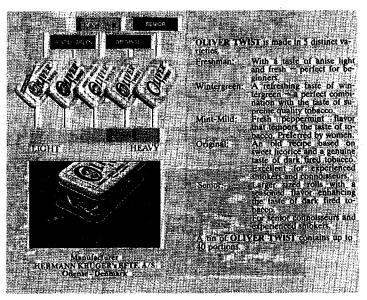


Figure 2 Oliver Twist, a smokeless tobacco product made by the Danish company Hermann Krüger and marketed in the US, comes in five strengths, from Freshman" ("perfect for beginners") to "Senior"

1

from 1979 to 1986, had this to say about the matter¹⁴: "They talked about graduation all the time – in sales meetings, memos and manuals for the college program. It was a mantra."

The graduation process was even depicted schematically in a UST diagram exhibited at the *Marsee* case (figure 1).²¹ The diagram shows a "graduation process", beginning with Skoal Bandits, progressing to Happy Days brands or other Skoal products, and then finally to Copenhagen.

Another oral snuff manufacturer, the Danish company Hermann Krüger, sells smokeless tobacco in the US under the brand name Oliver Twist. Oliver Twist brands come in five strengths ranging from "light" to "heavy" (figure 2). The lightest brand is called "Freshman" and is, according to the company's instructions, "perfect for beginners". "Senior" is the highest strength brand. It is for "Senior connoisseurs and experienced smokers". "22

The Pinkerton Tobacco Company, which is owned by Swedish Tobacco Company, manu-



Figure 3 UST communicated with its college sales representatives through its newsletter Smokeless Signals

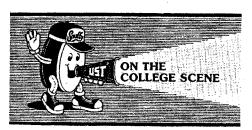


Figure 4 UST's mascot "Snuffy" keeps its sales representatives informed of developments "on the college scene"

factures a low nicotine product called Renegades, which is sold in mouth bags, and a high nicotine brand called Red Man oral snuff. The Conwood Company sells both a low nicotine brand, Hawken, and a high nicotine brand, Kodiak.⁷

Advertising and promotion of a graduation strategy

Oral snuff manufacturers promote and advertise starter brands through free sampling, which is done through the mail and at sponsored events. In addition, UST has had a College Marketing Program.23 The only products given as free samples by UST are the low nicotine brands Skoal Bandits, Skoal Mint, and Skoal Cherry Long Cut. Cherry is a flavour particularly appealing to young people because of the sweet taste. During the last six months of 1984, over 400000 free samples were mailed by UST in response to national magazine advertisements.24 According to the Federal Trade Commission, 25 \$15.8 million (13% of all smokeless tobacco advertising and promotional expenditures) was spent on free sampling in 1993 and \$22.9 million (19 %) on public entertainment, which included sponsored rodeos, auto racing, music concerts, and other events where free sampling is routinely done. A major UST target for these samples is the young. In 1977, Bill Falk, a spokesman for US Tobacco, said: "A lot of young people are getting into [snuff]. It's become a status thing. When a kid gets a new pair of jeans, he puts the snuff can in his back pocket and rubs



Figure 5 A brochure for Skoal Bandits explains that use of the product is "as easy as 1-2-3"

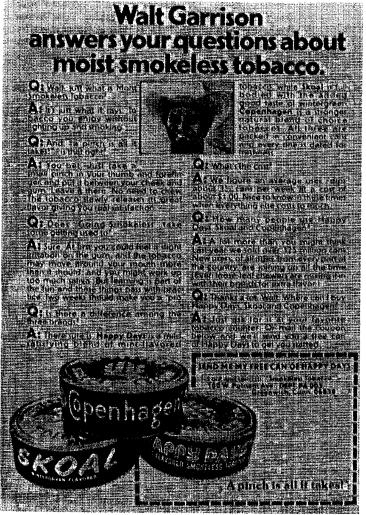


Figure 6 A UST advertisement from Parade magazine (8 June 1980) uses former Dallas Cowboys football star Walt Garrison to explain how to use smokeless tobacco products. It explains that "learning is part of the fun" and that "New users, of all ages [emphasis added],... are joining up all the time."

it until the outline shows. It shows he's old enough to chew."26

UST's College Marketing Program was established in the late 1970s and employed college representatives on hundreds of campuses throughout the US (figures 3 and 4). The following quotes are from the company's College marketing manual.²⁷ This was the training manual for student representatives. The first quotation describes the importance of creating new consumers from college students today because of their value as the adult market of the future. "Consider that within this vitally important market many college/young adult consumers have never had the opportunity to experience the enjoyment of smokeless tobacco. Success in reaching the college student today will determine the continued popularity and growth for our products in the young adult and older market segments tomorrow."

The next two quotes deal with the importance of providing free samples to college

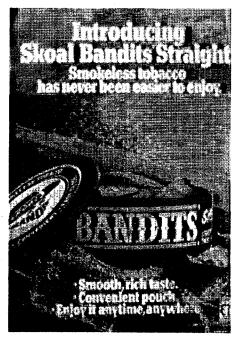


Figure 7 An advertisement "introducing" Skoal Bandits, a smokeless tobacco product "easier to enjoy"



Figure 8 The advertisement for Copenhagen employs the slogan 'sooner or later it's Copenhagen', the highest free nicotine brand

students and of giving them specific instructions about how to use snuff:

It is fact that the only way to create a new user of our product is by having the consumer actually try the product. We are the ones who must get out to the consumer and show him the proper technique of using our smokeless tobacco.

Your number one objective is quality one-on-one sampling. When sampling, try to zero in on young smokers (smokers are usually more accepting of a

ŧ.

Ę,

3

3

EXPANDING USER BASE

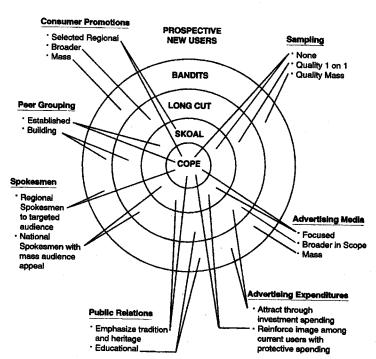


Figure 9 A UST chart, shown at a November 1994 Congressional hearing, which describes seven activities used by UST to expand its "user base". (This chart is a replica of the one presented at the hearing.)

sample as they already use tobacco, and 85% of smokers want to quit). Quality sampling presentations should include teaching non-users how to open the can, start with a small pinch, don't swallow product or juices, it will take time to get used to using oral tobacco, so keep on trying it, and inform the non-user where he can purchase the product.

Another quote from the manual instructs the student representative on how to deal with health inquiries from potential consumers or negative responses:

Don't discuss health issues with anyone. If someone is negative towards your sampling, a good line to use is that "If a person chooses to use tobacco, we would like them to use our product instead of someone else's product." Any further health related inquiries should be addressed to the Greenwich Office.

According to Leading National Advertisers, advertising expenditures for the low nicotine brands far outweigh those for the higher nicotine brands. In 1983, total US Tobacco advertising dollars for Skoal Bandits accounted for 47% of all company snuff advertising, 28 even though the brand made up only 2% of market share by weight. 29 Copenhagen, the highest nicotine brand made by UST, had only 1% of advertising expenditures 28 but 50% of market share. 29 UST spent \$5.8 million in 1990-1 for print advertising for Skoal and Skoal Bandits. 30 No print advertising was reported for Copenhagen.

Advertising messages for the low nicotine brands further support their role in the graduation strategy. Advertisements have provided non-users with instructions on how to use oral tobacco. A text for a Skoal Bandits brochure (figure 5) reads, "It's as easy as

1-2-3.... All you do is put it between your cheek and gum - the refreshing taste comes right through." In a 1980 advertisement by UST (figure 6), former Dallas Cowboys football star Walt Garrison answered questions about moist snuff, including this one:

Q: Does Going Smokeless take some getting used to?

A: Sure. At first you could feel a slight irritation on the gum, and the tobacco may move around your mouth more than it should, and you might work up too much saliva. But learning is part of the fun and these things pass with practice. Two weeks should make you a "pro."

This advertisement actually instructs the new user to ignore "irritation" – a natural warning sign of disease. It also boasts that: "New users, of all ages [emphasis added]... are joining up all the time."

Other advertisements show how advertising promotes the graduation strategy. An advertisement for Skoal Bandits used selling messages such as "Introducing" and "Easier to enjoy" (figure 7). In contrast, one for Copenhagen simply states: "Sooner or later – it's Copenhagen" (figure 8).

A 1986 brochure for Skoal Bandits³¹ offers new users instructions on how to use the product and conveys a clear understanding of how to develop tolerance to the toxic effects of a drug. According to the brochure:

How long should I keep the pouch in my mouth? If you haven't tried Skoal Bandits before, we recommend that you keep your first one in for about a minute – then remove. The next time you try another one, leave it in for a bit longer. Like your first beer, Skoal Bandits can be a taste that takes time to acquire and get the most out of. After four or five Skoal Bandits you'll find you've developed quite a taste for them and you'll want to keep a pouch in as long as the flavour lasts – this varies from person to person.

Further evidence documenting industry intent to move new users from low to high nicotine snuff products was presented to the US House of Representatives Subcommittee on Health and the Environment at a hearing on 29 November 1994 on smokeless tobacco. Hearing Exhibit 4, a UST document released by Henry Waxman, then subcommittee chairman, describes seven activities that were used to expand UST's "user base" (figure 9). According to the exhibit, these marketing activities are intended to move new users from Skoal Bandits to Long Cut, to Skoal, and finally to Copenhagen. The seven marketing tools include sampling, advertising media, advertising expenditures, public relations, spokesmen, peer grouping, and consumer promotions. In the case of the low nicotine brand Skoal Bandits, mass sampling, mass advertising, and mass promotions are recommended. In contrast, the expansion strategy for the high nicotine Copenhagen calls for no sampling, focused advertising, and selected regional consumer promotions.

Conclusions

This evidence indicates that oral snuff manu-

facturers manipulate levels of free nicotine in oral snuff brands and that UST employs a graduation strategy based on free sampling of low nicotine brands with the intent of causing and maintaining nicotine dependence among young men with no history of tobacco use. The marketing campaign has resulted in a surge in snuff use among adolescent males. Other nations that were recently faced with the new introduction of oral snuff into their markets banned the products before use became widespread. Bans are now in effect in Australia, New Zealand, Hong Kong, and the European Union.32 The long-term impact on oral health and oral cancer from this marketing programme will be devastating unless steps are taken immediately to prevent smokeless tobacco manufacturers from promoting nicotine addiction to youth.

1 US Department of Health and Human Services. The health consequences of involuntary smoking. A report of the Surgeon General, 1986. Rockville, Maryland: Public Health Service, Centers for Disease Control, 1986. (DHHS Publication No (CDC) 87-8398.)

Bolinder G, Alfredsson L, Englund A, Faire U. Smokeless tobacco use and increased cardiovascular mortality among Swedieh construction mortalize.

Swedish construction workers. Am J Public Health 1994; 84: 399-404

Giovino GA, Schooley MW, Zhu BP, et al. Surveillance for selected tobacco-use behaviors – United States, 1900–1994. MMWR 1994; 43(SS-3): 1-43.

1900-1994. MMWR 1994; 43(8S-3): 1-42.
 4 US Centers for Disease Control. Tobacco use among high school students - United States, 1990. MMWR 1991; 40: 617-9.
 5 Anderson WA, Albrecht RR, McKeag DB. Second replication of the national study of the substance use and abuse habits of college student-athletes. East Lansing, Michigan Michigan State University, College of Human Medicine, Office of Medical Education, Research and Development, 11th 1903

6 Henningfield JE, Radzius A, Cone BJ. Estimation of available nicotine content of six smokeless tobacco products. Tobacco Control 1995; 4: 57-61.
7 Djordjevic MV, Hoffmann D, Glynn T, Connolly G. US commercial brands of moist snuff, 1994. I. Assessment of nicotine, moisture, and pH. Tobacco Control 1995; 4: 52-6.

8 US Tobacco Document No 210 1124, dated 5 June 1981. Marsee Court transcript, vol 4, pp 1661-2, read into the record by George Braly.

US Tobacco Document No 1037818-20, dated 5 June 1981,

Marsee Court transcript, vol 5, p 113, read into the record by George Braly. 10 Armitage AK. Turner DM. Absorption of nicotine in

- cigarette and cigar smoke through the oral mucosa. Nature 1970; 226: 1231-2.
- 11 Patton, Boggs, and Blow. Smokeless tobacco ingredient list. Washington, DC: Patton, Boggs, and Blow, 3 May 1994:
- Gothia Tobak. Rökfi tobak från Göteborg. Göteborg, Sweden: Gothia Tobak, Svenska Tobaks AB, 1994: 1-8.
 Kronquist L. Snusets innehåll. Göteborg, Sweden: Gothia Tobak, Svenska Tobaks AB, 1994.

- Tobak, Svenska Tobaks AB, 1994.

 14 Freedman AM. How tobacco giant doctors snuff brands to boost their 'kick'. Wall Street J 1994 April 26; Al, Al4.

 15 United States Federal Court, Western District of Oklahoma, Marsee vs US Tobacco. No CIV-84-2777R, vol 25, pp 2220, 2232. Trial exhibit 158, plaintiff's deposition exhibit 14.

 16 United States Federal Court, Western District of Oklahoma, Marsee vs US Tobacco. No CIV-84-2777R, vol 25, pp 2219 et seq. Trial exhibit 157, plaintiff's deposition exhibit 12.

 17 UST annual report, 1993. Greenwich, Connecticut: UST, 1993.

- Document No 2473950, Marsee Court transcript, vol 5, pp 112-3, read into the record by George Braly.
 Feigelson J. Skoal Bandits blitz kicks off NY entry. Advertising Age 1983 Aug 8; 46.
 US Tobacco Company. Up to snuff. Greenwich, Connecticut: US Tobacco Company, Spring 1985.
 United States Federal Court, Western District of Oklahoma, Marsee vs US Tobacco. No CIV-84-2777R, UST Document No 12017104, vol 5, pp 12-13. Plaintiff's exhibit No 157.
 Hermann Krüger. Information Oliver Twist. Odiense, Denmark: Hermann Krüger, 1994.
- Hermann Krüger. Information Oliver Twist. Odiense, Denmark: Hermann Krüger, 1994.
 Ernster VL. Advertising and promotion of smokeless tobacco products. In: Smokeless tobacco use in the United States: National Cancer Institute Monograph No. 8. US Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute, 1989: 87-94. (NIH Publication No 89-3055)
- 24 Dougherty PN. Moving smokers to snuff. New York Times 1984 Jan 13; 4.
- 25 Federal Trade Commission report to Congress pursuant to the Comprehensive Smokeless Tobacco Health Education Act of 1986. Washington, DC: US Federal Trade Commission,

- Kranes M. Chaws-gripping entertainment. New York Post 1977 Mar 16; 37 (afternoon edition).
 US Tobacco Company. College marketing manual. Greenwich, Connecticut: US Tobacco Company, 1982.
 Publishers Information Bureau. Leading national advertisers: national brand report. New York: Publishers Information Bureau Inc., 1984.
 Maxwell JC Jr. The Maxwell consumer report: Smokeless tobacco industry in 1993. Richmond, Virginia: Wheat, First Securities Inc., 1993.
 Publishers Information Bureau. Leading national adversarial adversarial processing the processing of the processing the process
- Publishers Information Bureau. Leading national advertisers: national brand report. New York: Publishers Information Bureau Inc., 1993.
 David Brown Promotions. Introducing Skoal Bandits. Cranleigh, Scotland: Daniel Brown Promotions Ltd, 1994.
- 1936. Smokeless tobacco in developed countries: an epidemic prevented. In: Durston B, Jamrozik K, eds. Tobacco and health 1990: the global war. Perth: Health Department of Western Australia, 1990: 120-5. (Proceedings of the Seventh World Conference on Tobacco

Dealing With an Innovative Industry: A Look at Flavored Cigarettes Promoted by Mainstream Brands

Product and marketing innovation is key to the tobacco industry's success. One recent innovation was the development and marketing of flavored cigarettes as line extensions of 3 popular brands (Camel, Salem, and Kool). These products have distinctive blends and marketing as well as innovative packaging and have raised concerns in the public health community that they are targeted at youths.

Several policy initiatives have aimed at banning or limiting these types of products on that basis. We describe examples of the products and their marketing and discuss their potential implications (including increased smoking experimentation, consumption, and "someday smoking"), as well as their potential impact on young adults. (*Am J Public Health*. 2006;96:244–251. doi:10.2105/AJPH.2004.061200)

M. Jane Lewis, DrPH, and Olivia Wackowski, MPH

THE TOBACCO INDUSTRY HAS

a long history of innovation in product development. Successful product innovations have included the introduction of filter, menthol, and low-tar cigarettes; changes in cigarette length and circumference (such as ultra long and ultra slim); and changes in cigarette packaging, such as the introduction of the 1950s flip top hard pack, to name a few.1 Innovation in products and marketing is driven by the desire to increase market share and therefore profits. It also may be fueled by industry research into target audience needs, product preferences, and smoking practices and by the need to respond to environmental factors, including litigation, consumer health concerns, public opinion, and tobacco control regulations.

Flavored line extensions of popular cigarette brands—specifically, Camel's Exotic Blends, Kool's Smooth Fusions, and Salem's Silver Label—are a recent tobacco industry innovation.

Although the Wall Street Journal recently called sweet-flavored cigarettes "one of the hottest new product categories in the tobacco industry," industry documents show that tobacco companies have researched and developed flavored cigarettes off and on for decades. International's Dreams brand and a variety of other flavored tobacco products existed earlier in a "flavor niche" of the tobacco marketplace. However, compared

with other flavored cigarettes on the market today, these 3 products, especially Camel Exotic Blends, have been more visible, more available, and, perhaps because of their visibility and availability, more controversial.

These flavored cigarettes may work as innovations intended to increase market share by both meeting product preferences of target audiences and by acting as a means of reaching desirable target audiences (namely, young people) in an environment of growing restrictions. Recent studies show that the 3 flavored products are being used primarily by young people. In surveys conducted in 2004, as many as 20% of smokers 17 to 19 years old had used flavored cigarettes in the last 30 days, whereas only 6% of smokers older than 25 were found to have smoked one of the 3 flavored lines. 10 Use was highest for 17-year-olds (19.6%) and 18- to 19-year-olds (20.2%) and lowest for smokers older than 40.11 In terms of gender, 17- to 26-year-old males were more likely than females of the same age to use these products. Among the 3 flavored lines, Camel Exotic Blends was more commonly used than the other two.11 These data raise significant concerns regarding the implications of these products for smoking among youths and young adults.

METHODS

Information presented here was based on review of the scientific and popular literature and

collection and analysis of tobacco industry products and promotions. Examples of the products themselves, magazine advertising, and direct mail promotions were drawn from Trinkets and Trash, a surveillance system that collects tobacco industry products and promotions and displays images and information on its Web site.12 From 2003 to 2005, Trinkets and Trash tracked and examined tobacco advertising in 20 general population (but not youth or teen) magazines and collected direct mail promotions from a convenience sample of Trinkets and Trash contributors who had received mail from Camel, Kool, and Salem. A total of 20 packs of flavored cigarettes (12 for Camel, 4 for Kool, 4 for Salem), 20 advertisements related to flavored brands (14 for Camel, 4 for Kool, 2 for Salem), and 21 direct mail pieces promoting the flavored brands (18 for Camel, 2 for Kool, 1 for Salem) were collected. The content of the advertisements, the direct mail pieces, and the packs themselves were analyzed to identify themes. Variables such as the models featured, the type of scene portrayed, and the use of color and font style were considered. In addition, the copy or descriptive words used in all of the pieces were recorded and analyzed. Although the sample may not have included all promotional materials for these flavored brands, we believe it was sufficient for making preliminary observations and for identifying trends and areas for future research.

FLAVORED CIGARETTES AS AN INNOVATION

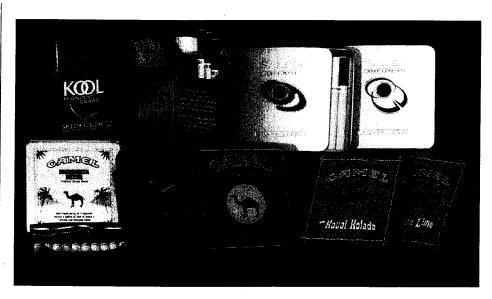
In 1999, the RJ Reynolds Tobacco Company began marketing Camel Exotic Blends, a line of premium flavored cigarettes with designer wrappings packaged in flat full-color tins. The product line consists of 5 mainstay flavors and additional "special" or "limited time only" flavors featured in promotion with seasons, holidays, or other campaigns. Although initially available only through Camel events or special order, today they may be found in many outlets that sell tobacco, including convenience stores, gas stations, and tobacco stores. 13 At least 18 different flavors of Exotic Blends have been introduced since 1999. The blends have used fruit flavors such as berry, lime, coconut and citrus; sweet flavors such as vanilla, cinnamon, chocolate, mint, and toffee; and alcohol flavors such as bourbon.

The Exotic Blends line was followed by flavored extensions of 2 major menthol cigarette brands: RJ Reynolds' Salem Silver Label, a collection of 4 flavored blends introduced in 2003, and Brown and Williamson's 4 flavored menthols, Kool Smooth Fusions, a limited edition line introduced in 2004. These 2 brands combined menthol with such flavors as berry, vanilla, and mint. It should be noted that Camel Exotic Blends is the only one of these brands to have continued sales into 2005.

PRODUCT AND BRAND IDENTITY

Package Design

The products under discussion are presented in unique and graphically appealing packages



Source. Image courtesy of Trinkets and Trash (www.trinketsandtrash.org).

FIGURE 1—Distinctive packaging sets the flavored cigarettes apart. Kool's Smooth Fusions utilize a completely new cigarette package design—a hard pack that opens up in the middle into 2 halves like a book, with cigarettes held vertically in each side (upper left). For Silver Label, Salem replaced its standard green or black "slide box" hard park with a sleek, silver, slightly curved, tin/aluminum case (upper right). Camel's Exotic Blends come in embossed foil-wrapped lining paper within elegant and sleek colored tins, following the traditional style of luxury cigarette packaging (bottom row).

and are designed to create a visual impact (Figure 1). Package design is a key part of a product's brand identity and is especially important for cigarettes. 14,15 Unlike many other products, cigarette packs are not discarded after being opened but rather are retained and reopened (often in view of others) until the last cigarette has been smoked. The social visibility of the packs and, in the case of distinctive cigarettes, the cigarettes themselves make them "badge products," wherein the use of the product associates the user with the brand image. 15-17 According to a Brown and Williamson executive, consumer response described Kool Smooth Fusions as "a pack to be seen with." 18 Furthermore, the distinctive look of the cigarette pack itself serves as a traveling advertisement of the

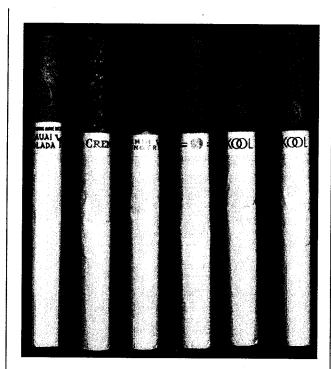
brand when carried by a smoker; when placed together in a retail setting, the packs act as mini-billboards for the brand at the point of sale. ¹⁴ Packaging may be particularly important in promoting a new cigarette, especially at the point of sale, where customers choose among the clutter of competitive brands and may meet new brands for the first time. ¹⁵

The Camel, Salem, and Kool flavored product lines share a number of other commonalities that also differentiate them from most cigarettes and present them as being new. In addition to innovative packaging, varied leaf blends, and intense flavorings and aromas, the cigarettes themselves have distinctive looks, with designer tipping and wrapping papers that highlight brand logos and match the color and look of

the flavor's pack (Figure 2). Finally, carefully crafted descriptions of the flavor are provided with the pack to further communicate the identity of both the individual flavor and the flavored brand line overall. For example, the wording on Kool's Mintrigue pack describes the flavor as "A deeply rewarding menthol experience that tantalizes, yet leaves you guessing as to the secret of its intriguing refreshment." This "mysterious" sentiment is echoed on the packs of the other Kool flavors, which are described as "alluring," "enchanting," and "enticing," and is again reinforced in the advertising of these flavors (Figure 3).

Marketing

Advertising is traditionally used to establish brand identity and shape consumers' attitudes about a brand. 15,19



Source. Image courtesy of Trinkets and Trash (www.trinketsandtrash.org).

FIGURE 2—The look, smell, and taste of the 3 flavored cigarette lines set them apart from others. These cigarettes highlight brand logos and use designer tipping and wrapping papers that match their brand and flavor image. Cigarettes from left to right: 3 Camel Exotic Blends, 1 Salem Silver Label, 2 Kool Smooth Fusions.

Advertisements for the 2 flavored menthol brands make use of modern type fonts and computer-generated geometric designs and shapes and convey surreal or technological themes. The images for the 5 mainstay Camel Exotic Blends use drawn models with darker features and Middle East-inspired designs, themes, and colors. Their appearance and marketing taps into the current trend toward "new luxury" products that are somewhat more expensive but perceived as being of better quality and taste.20 Promotional messages describe the line as "a collection of sophisticated indulgences," luxuries that can enhance pleasure. For example,

vanilla-flavored Crema is described as delivering a "creamy, indulgent flavor that offers an intriguing and pleasurable smoking experience."

The idea of luxury is reinforced through advertisements portraying Exotic Blends as fine products served on platters and used with other select "indulgences" such as chocolates and champagne (Figure 4). In contrast, the imagery of the special or "limited edition" Exotic Blends are more colorful and active, as they portray models celebrating special occasions such as Mardi Gras, or enjoying seasons such as summer (Figure 5). These images frame smoking as a fun activity for special

occasions, parties, and use with alcoholic drinks.

DISSEMINATION OF THE INNOVATION

To diffuse these flavored lines, tobacco companies repeated the images and descriptions of these products across a variety of standard industry diffusion channels, including in-store promotions, magazine ads, direct mail, themed parties at bars/clubs, and interactive Web pages.

In the face of recent marketing restrictions, several studies have noted the tobacco industry's growing reliance on point-of-sale promotions. ^{21–24} For these flavored products, posters, signs, and other in-store displays—in addition to the packs themselves—encourage purchase. ²⁵

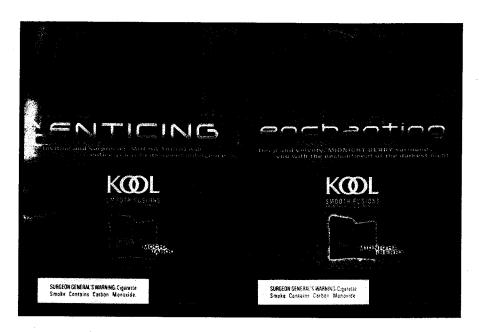
Advertising for Camel Exotic Blends was repeatedly found in popular magazines with a predominantly young adult (18-34 years) readership (as reported by individual magazine media kits' circulation and readership data), including Blender, Cosmopolitan, FHM, GQ, Jane, Maxim, Playboy, and Rolling Stone (many of which may also attract teenaged readers). Smooth Fusions ads were also found in those popular magazines, as well as in Latina and Ebony, magazines aimed, respectively, at Latina and African American women. 12

In contrast to magazines, which are visible to the general population, direct mail promotions go only to those on the tobacco industry's extensive direct mail databases. ²⁶ Camel and Kool used direct mail to introduce, promote, and even allow sampling of their flavored blends. The Trinkets and Trash collection

received 9 different direct mail pieces from Camel and 2 from Kool between 2003 and 2005 that specifically highlighted their flavored lines. Nine additional Camel pieces promoted Exotic Blends together with the regular blends. Kool used direct mail to introduce Smooth Fusions and provide free trial packs of the new line. One piece from Camel (Figure 4) presented and described each of the 5 mainstay Exotic Blends. Other Camel pieces promoted limited-timeonly seasonal or holiday flavors, such as the New Year's-themed Midnight Madness. 12

Bar and club events are a natural channel for disseminating a "new" version of tobacco products^{27–29} such as flavored cigarettes. Camel promoted Exotic Blends with free cigarette samples during its 2001–2002 "7 Pleasures of the Exotic" theme party tour and followed this up with its 2004 "Roaring 2000s" bar/club tour to 11 different cities, featuring its bourbon-flavored limited-time cigarette, Back Alley Blend.

Web sites such as Camel's offer a different kind of dissemination channel-one that is more exclusive (it is a "secured" site. where a login, password, and age verification are needed to explore) and more interactive than print materials. Camel advertisements and direct mail frequently direct readers to the Web site, where Camel devotes a section to promoting the Exotic Blends. The flavors are individually featured and described in various elaborately themed pages. A unique feature of this channel is the "Exotic Blends Store Locator," a search engine that allows users to type in an address and search for the nearest stores that carry the Exotic Blends.13



Source. Image courtesy of Trinkets and Trash (www.trinketsandtrash.org).

FIGURE 3—Kool's sexy Smooth Fusions magazine ads. Kool's ads use a sexy theme of mystery and intrigue. These ads ran during June through August 2004 in such magazines as *Ebony*, *Latina*, *Jane*, *Maxim*, *Blender*, *Cosmopolitan*, and *Playboy*.

IMPLICATIONS

The flavored cigarettes discussed here have come under fire from public health and tobacco control advocates, who say that these "candy flavored" products target youths. 2,18,30,31 In addition, they say that flavored cigarettes mask the taste of tobacco (or "sweeten the poison"),10 thereby making it easier for new smokers, 90% of whom are teenagers or younger, to take up the habit.2,18 The tobacco industry denies that these products are targeted at youths and says that the flavors, rather than being candylike, are those that appeal to adults. These cigarettes, the industry claims, reflect a general trend toward flavored products for other adult-oriented products such as liquors and coffee and are made for, tested with, and marketed to adults. 2,18

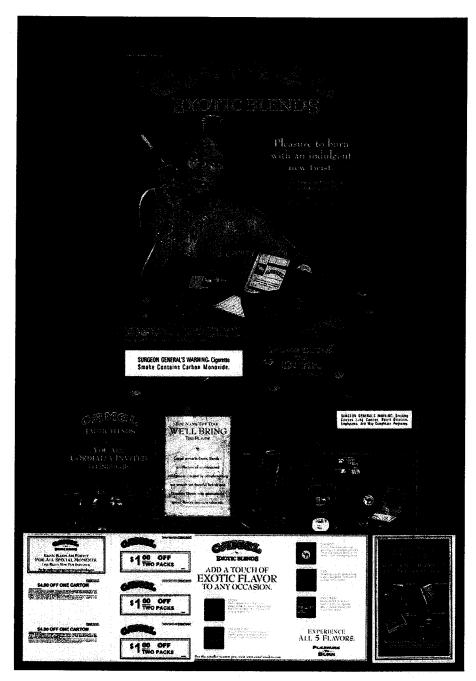
The distinction in target audiences is important for the future of these products. The Master Settlement Agreement (MSA) between the states and the tobacco industry outlawed advertising or promotions targeting youths (younger than 18 years) either directly or indirectly but did not impose significant restrictions on marketing to adults.32 Violation of the MSA through targeting youths could result in substantial penalties for the manufacturers and an end to the sales and marketing of these products. Thus far, tobacco control advocacy efforts and policy initiatives aimed at banning or limiting the sale of flavored products have primarily framed concerns in terms of targeting youths.

Although we agree that these products are indeed enticing to youths and at the very least are being marketed with them in mind, in this discussion we will focus on the tobacco industry's stated target population of adults, principally young adults, who serve as role models for youths. Indeed, young adults constitute an appealing market for the industry for several reasons. In addition to being the youngest legal targets for the tobacco industry and a group not protected by the MSA, young adults (18-24 years) have some of the highest rates of cigarette smoking in the United States^{33,34} and are the one group for which smoking prevalence has not fallen in recent years.35 Tobacco companies recognize the importance of the youth and young adult market because brand

preferences are established early in life, often with the first cigarette. Targeting young adults may be perceived as doubly beneficial in that it both captures 18- to 24-year-olds and indirectly influences teens, who may seek to emulate their older peers.

Whereas previous research found that approximately 90% of smokers began smoking during early adolescence, recent studies suggest that a growing number are initiating smoking as young adults.37-40 A number of factors have been suggested as playing a role in late initiation, including targeted marketing.29,41 In fact, review of previously secret tobacco documents has shown that the tobacco industry sees the process of becoming a smoker as something that begins in the teen years and extends into adulthood. 41,42 In other words, getting someone to initiate smoking is just the first step; producing a pack-a-day addicted smoker requires nurturing.

This nurturing and development of a loyal customer depends not just on the degree to which a tobacco brand's marketing employs images and words that resonate with an audience, but also on how well the product itself meets their needs and smoking preferences. The importance of the product's blend and taste to its success is not unknown to the industry. Research has shown that tobacco companies have modified product designs to meet target audience preferences, 43-45 with women and young people being notable target markets. According to tobacco industry documents, tobacco company research identified mildness, smoothness, sweetness, and less harsh-tasting cigarettes as being important



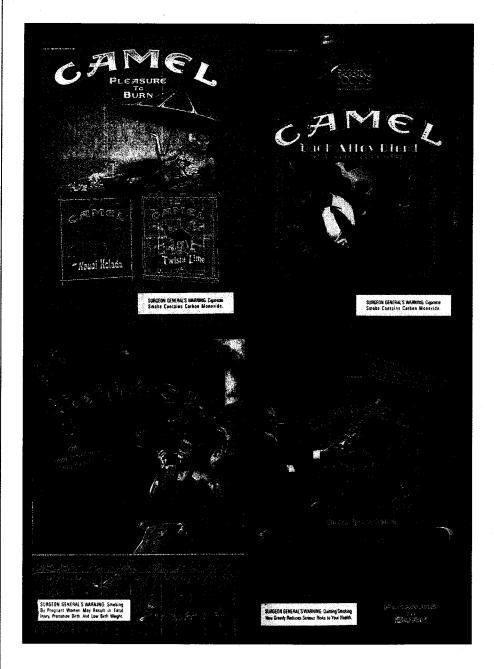
Source. Image courtesy of Trinkets and Trash (www.trinketsandtrash.org).

FIGURE 4—Exotic and luxurious marketing images. Marketing images reinforce the overall exotic and luxurious brand identity of Camel's mainstay Exotic Blends. This magazine ad (top) and direct mail piece (bottom) promote the Exotic Blends as fine products served on platters and used with other select "indulgences" such as chocolates and champagne (bottom). These products are often presented by attractive, luxuriously dressed, and exotic looking models (top). This direct mail piece from Camel (bottom) featured and described each of the five Exotic Blends and invited recipients to "add a touch of flavor to any occasion."

preferences for younger smokers. 45 In fact, RJ Reynolds spent much of the 1980s researching and developing new versions of Camel that were more appealing to the young adult smoker. During this time, flavoring was determined to be something that could increase perceptions of smoothness. In this way, flavored cigarettes may be considered as innovations developed for the purpose of gaining market share by building on known product preferences.

Advertising for Camel Exotic Blends frames the smoking of flavored cigarettes as sophisticated and exotic, an indulgence for "special occasions" 46 that exemplifies the luxury concept of "smoking less but smoking better."47,48 These cigarettes may therefore promote another behavior: the growing trend of nondaily or "someday smoking"49 (the highest rate of which is among 18- to 24-yearolds).34 In fact, according to an RJ Reynolds spokesman, Exotic Blends aim not at getting people to start smoking, but rather at adult smokers of competitive brands. "Instead of smoking two packs of mainstream cigarettes daily, we want them to only smoke a few of our cigarettes, but enjoy them more,"47 the spokesman said.

It is too early to estimate the extent to which these flavored products will be adopted or the influence they will have. As indicated in the introduction, recently released findings show that the flavored lines are being smoked by both youths and young adults. Further research into the prevalence of their use and the appeal of their advertising is being conducted. Additional research should focus not only on who is smoking these cigarettes, but also



Source. Image courtesy of Trinkets and Trash (www.trinketsandtrash.org).

FIGURE 5—Smoking as a fun activity for special occasions. The festive ads for Camel's "limited edition" Exotic Blends frame smoking as a fun activity for special occasions, parties, and for use with alcoholic drinks. The pineapple- and coconut-flavored Kauai Kolada and the lime-flavored Twista Lime were 2004's summer blends (upper left). Back Alley Blend (upper right) was the bourbon-flavored featured cigarette of Camel's Roaring 2000s campaign. Berry-flavored Bayou Blast celebrated Mardi Gras (bottom left), and in December 2003, Midnight Madness was marketed as the New Year's promotional blend featuring the "bubbly flavor of New Year's spirits" (bottom right).

on how, when, and where smokers are using these products. How regularly are they smoked? Are these cigarettes mostly used by current smokers as complements to their existing brand of cigarettes? If so, when, or on what occasions, do smokers decide to use the flavored cigarettes instead? What percentage of flavored-cigarette smokers are new smokers? "Part-time" smokers? Are there people who smoke flavored cigarettes now instead of their regular brand (and instead of quitting)? What do young smokers and nonsmokers think about the advertising and packaging concepts and the product overall? Are the products viewed as less harmful, more attractive, or more acceptable?

It is also unclear to what extent the flavored products-even if they are used as occasional smokes, as their producers say they are intended-might increase sales of and influence attitudes toward the brand in general. Will smoking Camel's Exotic Blends result in increased market share for regular Camels? Information from an ad agency, Gyro Worldwide, which reports on its Web site that it played an integral role in developing the Exotic Blends launch strategy,25 suggests this might be one of the aims of Camel's flavored line. According to Gyro, the goal in the creation of the Exotic Blends was to "cast a positive halo across the entire Camel brand by raising product perceptions and dimensionalizing the brand's unique exotic brand heritage."25

Although much of the controversy over these flavored cigarettes has centered on their potential to encourage experimentation (while masking the taste of the tobacco) among nonsmokers, smoking initiation is not the only

DEALING WITH INNOVATION AND UNCERTAINTY

behavior they may influence. The products discussed here offer a variety of tempting tastes and smells that may entice current and transitional smokers to continue smoking, derail quitting attempts, and lure those who have quit smoking to take it up again. These, too, are questions that need to be explored.

It is difficult to gauge how these products are viewed by their respective companies, although it has been noted that in 2002, following the introduction of Exotic Blends, Camel's sales rose 4% whereas Marlboro's fell 6%. 30 More information is needed about the development of the products (including how flavors are selected and how they are added), about the monetary investment in these products and their advertising, and about their adoption success and market share.

In the meantime, further regulation could work to impede the adoption of these products. As mentioned earlier, the MSA, while outlawing marketing to youths, did not significantly restrict marketing to adults and therefore left open a number of options for the tobacco industry. In keeping with the industry's history of shifting strategies in response to regulation, public opinion, and other factors,50 the MSA has been followed by increased expenditures for and emphasis on marketing strategies and populations (including young adults) not bound by it, rather than a reduction in overall cigarette promotional spending. 23,26,41,42,51,52 Unaddressed strategies include in-store advertising, advertising in magazines that lack a significant youth readership, sponsorship of adultonly events, direct mail, and Internet promotions, all of which have been used in promoting

these flavored products. In addition, MSA provisions did not address the content or appearance of cigarettes or their packaging, leaving the door open for the development and promotion of such products as flavored cigarettes, as well as their attractive and innovative packaging.

Public health and tobacco control advocates have long called for government regulation of the design and content of tobacco products, as well as their marketing, as a way of limiting the industry's ability to maximize both the appeal and addictiveness of their products.⁵³ One provision of recently proposed legislation for the Food and Drug Administration regulation of tobacco calls for banning the use of flavoring other than menthol in cigarettes. Other policies that require plain or generic packaging of tobacco products could limit the appeal of these attractively packaged cigarettes by standardizing tobacco product packaging and design so it is the same from brand to brand. 17,54 These policies would protect not only youths but also other susceptible target groups such as young adults.

Whether further regulation of tobacco products, packaging, and marketing will someday be realized or not, the tobacco industry will undoubtedly continue to develop new strategies to ensure its existence and maximize sales within any regulatory environment it faces. For this reason, public health practitioners need to be aware of tobacco industry product development and marketing tactics in order to anticipate, address, and counter their potential impact. Ongoing surveillance of tobacco industry activities is therefore essential.

About the Authors

The authors are with the Department of Health Education and Behavioral Science, University of Medicine and Dentistry of New Jersey-School of Public Health, New Brunswick, NJ.

Requests for reprints should be sent to M. Jane Lewis, DrPH, UMDNJ-School of Public Health, 317 George St, Suite 209, New Brunswick, NJ 08901 (e-mail: lewismj@ umdnj.edu).

This essay was accepted August 7, 2005.

Contributors

M.J. Lewis conceptualized the essay and led the writing. O. Wackowski analyzed and described the brand image and dissemination channels and contributed to the writing and editing of drafts.

Acknowledgments

This work was partially supported by funding from the Robert Wood Johnson Foundation.

We thank Bonnie Kantor and Pressing Issues for their work on the photography and images shown here and on Trinkets and Trash in general. Thanks also to Spiro Yulis for early research on this topic, Michael Greenberg and Gary Giovino for their helpful advice, and Cris Delnevo and Mary Hrywna for their input.

References

- 1. Borio G. Tobacco timeline. Available at: http://www.tobacco.org/resources/history/Tobacco_History20-2.html. Accessed May 21, 2005.
- O'Connell V. Massachusetts tries to halt sale of "sweet" cigarettes. Wall Street Journal. May 20, 2004:B1.
- Kapuler & Associates. Smokers reaction to a flavored cigarette concept—a qualitative study. Brown and Williamson. January 1984. Bates No. 679235846/5893. Available at: http://legacy.library.ucsf.edu/tid/xfb80f00. Accessed May 9, 2005.
- 4. RM Manko Associates. Summary report new flavors focus group sessions. Lorillard. August 1978. Bates No. 85093450/3480. Available at: http://legacy.library.ucsf.edu/tid/blx31e00. Accessed May 9, 2005.
- 5. Jones J. Focus group results on full-flavored menthol cigarettes. Philip Morris. December 6, 1982. Bates No. 2023069326/9332. Available at: http://legacy.library.ucsf.edu/tid/ts148e00. Accessed May 11, 2005.
- Distinctly flavored products. Philip Morris. 1990. Bates No. 2075651533.
 Available at: http://legacy.library.ucsf.

- edu/tid/jhj55c00. Accessed May 11, 2005.
- 7. Frank D, Riehl T. Cigarettes with recognizable flavors—a review. Brown and Williamson. May 10, 1972. Bates No. 621618728/8737. Available at: http://legacy.library.ucsf.edu/tid/ffo70f00. Accessed May 10, 2005.
- 8. Bonhomme J, Slone M. Flavored cigarette qualitative research. Philip Morris. July 30, 1993. Bates No. 2048886618/6619. Available at: http://legacy.library.ucsf.edu/tid/dko36e0. Accessed May 9, 2005.
- 9. Brown BH, Cantile A, Daniel HG, Johnston ME. 2305 flavor development national pol test 4022 five distinctively flavored cigarettes. June 14, 1977. Bates No. 2057753003/3008. Available at: http://legacy.library.ucsf.edu/tid/lno42e00. Accessed May 10, 2005.
- Johnson M. Lawmakers seek ban on flavored cigarettes. Associated Press. May 11, 2005. Available at: http://www. bradenton.com/mld/bradenton/living/ health/11623241.htm. Accessed June 29, 2005.
- 11. Giovino GA, Yang J, Tworek C, et al. Use of flavored cigarettes among older adolescent and adult smokers: United States, 2004. Paper presented at: National Conference on Tobacco or Health; May 2005; Chicago, Ill.
- 12. Trinkets and Trash: artifacts of the tobacco epidemic. Available at: http://www.trinketsandtrash.org. Accessed June 6, 2004.
- 13. Camel Exotic Blends store locater. Available at: http://www.smokerswelcome.com/CAM/pub/exotic_blend_retail/exotic_locator.jsp. Accessed December 1, 2004.
- Slade J. Marketing policies. In: Rabin RL, Sugarman SD, eds. Regulating Tobacco. New York, NY: Oxford University Press; 2001:72–110.
- 15. Wakefield M, Morley C, Horan JK, Cummings KM. The cigarette pack as image: new evidence from tobacco industry documents. Tob Control. 2002; 11(S1):73—i80.
- 16. Wakefield M, Letcher T. My pack is cuter than your pack. Tob Control. 2002;11:154–156.
- 17. Cunningham R, Kyle K. The case for plain packaging. Tob Control. 1995; 4:80–86.
- 18. Ives N. Flavored Kool cigarettes are attracting criticism. New York Times. March 9, 2004. Available at: http://www.nytimes.com/2004/03/09/business/media/09adco.html?ex=1079939261&ei=1. Accessed March 10, 2004.
- 19. Ogilvy D. Ogilvy on Advertising. New York, NY: Vintage Books; 1983.

DEALING WITH INNOVATION AND UNCERTAINTY

- 20. Gardyn R. Oh, the good life. Am Demogr. November 2002:31–35.
- 21. Wakefield MA, Terry-McElrath YM, Chaloupka FJ, et al. Tobacco industry marketing at point of purchase after the 1998 MSA billboard advertising ban. Am J Public Health. 2002;92(6): 937–940.
- 22. Dewhirst T. POP goes the power wall? Taking aim at tobacco promotional strategies utilized at retail. Tob Control. 2004;13:209–210.
- Feighery EC, Ribisl KM, Schleicher N, Lee RE, Halvorson S. Cigarette advertising and promotional strategies in retail outlets: results of a statewide survey in California. Tob Control. 2001;10: 184–188.
- 24. Ruel E, Mani N, Sandoval A, et al. After the Master Settlement Agreement: trends in the American retail environment from 1999 to 2002. Health Promot Pract. 2004;5(S3):S99–S110.
- 25. Gyro Worldwide Case Studies— Camel Exotic Blends. Available at: http://www.gyroworldwide.com/case_ camelexotics.htm. Accessed June 27, 2005
- 26. Lewis MJ, Yulis SG, Delnevo C, Hrywna M. Tobacco industry direct marketing after the Master Settlement Agreement. Health Promot Pract. 2004; 5(S3):\$75-\$83.
- KBA Marketing. Comparative analysis: trend influence marketing vs traditional media. RJ Reynolds Tobacco Company. 1994. Bates No. 516067080.
 Available at: http://legacy.iibrary.ucsf.edu/tid/igz82d00. Accessed July 10, 2003.
- 28. Katz SK, Lavacck AM. Tobacco related bar promotions: insights from tobacco industry documents. Tob Control. 2002:11:92–101.
- 29. Sepe E, Ling PM, Glantz SA. Smooth moves: bar and nightclub to-bacco promotions that target young adults. Am J Public Health. 2002;92: 414–419.
- 30. Connolly GN. Sweet and spicy flavours: new brands for minorities and youth. Tob Control. 2004;13:211–212.
- 31. Massachusetts takes action against "sweet" cigarettes. Join Together. May 21, 2004. Available at: http://www.jointogether.org/y/0,2521,571058,00. html. Accessed June 5, 2004.
- 32. National Association of Attorneys General. Master Settlement Agreement. Available at: http://www.naag.org/issues/tobacco/index.php?sdpid=919. Accessed November 3, 2005.
- Centers for Disease Control and Prevention. Cigarette smoking among adults—United States, 2002. MMWR Morb Mortal Wkly Rep. 2004;53(20): 427–431.

- 34. Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Prevalence data nationwide tobacco use—2003. Available at: http://apps.nccd.cdc.gov/brfss/age.asp?cat=TU&yr=2003&qkey=4394&state=US. Accessed November 9, 2004.
- 35. Centers for Disease Control and Prevention. Cigarette smoking among adults—United States, 2000. MMWR Morb Mortal Wkly Rep. 2002;51(29): 642_645
- DiFranza JR, Eddy JJ, Brown LF, Ryan JL, Bogojavlensky A. Tobacco acquisition and cigarette brand selection among youth. Tob Control. 1994;3: 334–338.
- 37. Lantz PM. Smoking on the rise among young adults: implications for research and policy. Tob Control. 2003; 12(S1):i60-i70.
- 38. Moon-Howard J. African American women and smoking: starting later. Am J Public Health. 2003;93(3):418–420.
- Wechsler H, Rigotti N, Gledhill-Hoyt J, et al. Increased levels of cigarette use among college students. JAMA. 1998; 280:1673–1678.
- 40. Cairney J, Lawrence KA. Smoking on campus. An examination of smoking behaviors among postsecondary students in Canada. Can J Public Health. 2002;93(4):313–316.
- 41. Ling PM, Glantz SA. Why and how the tobacco industry sells cigarettes to young adults: evidence from industry documents. Am J Public Health. 2002; 92(6):908–912.
- 42. Ling PM, Glantz SA. Using tobaccoindustry marketing research to design more effective tobacco control campaigns. JAMA. 2002;287(22): 2983–2989.
- 43. Carpenter CM, Wayne GF, Connolly GN. Designing cigarettes for women: new findings from the tobacco industry documents. Addiction. 2005;100: 837–851.
- 44. Cook BL, Wayne GF, Keithly L, Connolly GN. One size does not fit all: how the tobacco industry has altered cigarette design to target consumer groups with special psychological needs. Addiction. 2003;98:1547–1561.
- 45. Wayne GF, Connolly GN. How cigarette design can affect youth initiation into smoking: Camel cigarettes 1983–93. Tob Control. 2002;11(S1): i32–i39.
- 46. Howington P. Cigarettes' ads target black teens, critics say. Brown and Williamson defends hip-hop's use. The Courier-Journal. April 1, 2004. Available at: http://medialit.med.sc.edu/kooltargetsblacks.htm. Accessed November 3, 2005.

- 47. Scott D. Luxury cigarettes targeting cigarettes' big spenders. Smokeshop Online. Available at: http://www.gosmokeshop.com/0202/cover.htm. Accessed November 23, 2004.
- 48. Ashley B. Prestige sells. Smokeshop Online. Available at: http://www.gosmokeshop.com/0600/merchant.htm. Accessed November 23, 2004.
- 49. Centers for Disease Control and Prevention. Prevalence of current cigarette smoking among adults and changes in prevalence of current and some day smoking—United States, 1996—2001. MMWR Morb Mortal Wkly Rep. 2003;52(14):303—307.
- 50. Lewis MJ, Delnevo CD, Slade J. Tobacco industry direct mail marketing and participation by New Jersey adults. Am J Public Health. 2004;94(2): 257–259.
- Celebucki CC, Diskin K. A longitudinal study of externally visible cigarette advertising on retail storefronts in Massachusetts before and after the Master Settlement Agreement. Tob Control. 2002;11:47–53.
- 52. Wakefield MA, Chaloupka FJ, Barker DC, Slater SJ, Clark PI, Giovino GA. Changes at the point-of-sale for tobacco following the 1999 tobacco billboard ban. Available at: http://tobaccofreekids.org/reports/stores/adbanpaper0717.pdf. Accessed November 22, 2004.
- 53. Henningfield JE, Benowitz NL, Connolly GN, et al. Reducing tobacco addiction through tobacco product regulation. Tob Control. 2004;13:132–135.
- 54. Slade J. The pack as advertisement. Tob Control. 1997;6:169-170.

MARKETWATCH

New Cigarette Brands With Flavors That Appeal To Youth: Tobacco Marketing Strategies

Tobacco industry documents reveal a deliberate strategy to add flavors known to appeal to younger people.

by Carrie M. Carpenter, Geoffrey Ferris Wayne, John L. Pauly, Howard K. Koh, and Gregory N. Connolly

ABSTRACT: Tobacco manufacturers have recently introduced a proliferation of exotic brands featuring candylike flavors. We reviewed internal tobacco industry documents and patents to assess the role of flavored cigarettes in the targeting of young smokers. This research revealed the development of flavor delivery technologies hidden from consumers and public health professionals, including the use of a plastic pellet placed in the cigarette filter. These findings raise concerns as to the potential added health risks associated with using new flavored tobacco products, and they underscore the need for effective assessment and monitoring of tobacco products.

ESPITE ASSURANCES that they no longer target youth either directly or indirectly, cigarette manufacturers have recently introduced a range of candyand liqueur-flavored tobacco products, with alluring names such as Dark Mint, Cool Myst, Midnight Berry, and Mocha Taboo, and seasonal variations such as Bayou Blast and Midnight Madness (Exhibit 1). These brand extensions are being heavily marketed to youth and racial/ethnic groups, with colorful and stylish packaging and flavors that mask the harsh and toxic properties of tobacco smoke.1 While overall cigarette sales have fallen, RJ Reynolds' (RJR's) Camel brand family experienced a 9.8 percent sales volume increase during the past year, coinciding with the introduction of flavored brand extensions.2

The purpose of this study was to review internal industry research to provide insight into flavored cigarettes and novel flavor technologies that are being used to capture the youth market. First, we reviewed internal documents to examine the use of flavors to target youth, including differences in flavor preferences among this target population, as well as industry product design and marketing strategies. Second, we assessed internal industry research as well as U.S. patents to identify the use of new and nonconventional flavor delivery systems in cigarettes, including the possible effects on product delivery. Finally, we considered the incorporation of new technology in recent products and policy implications based on their potential role in targeting new smokers.

Carrie Carpenter (ccarpent@hsph.harvard.edu) is a research analyst in the Division of Public Health Practice, Harvard School of Public Health, in Boston, Massachusetts. Geoffrey Ferris Wayne is research manager there. John Pauly is a cancer research scientist in the Department of Immunology, Roswell Park Cancer Institute, in Buffalo, New York. Howard Koh is the Harvey V. Fineberg Professor of the Practice of Public Health, Division of Public Health Practice. Gregory Connolly is a professor of the practice of public health in that division.

EXHIBIT 1
Examples Of Current Commercial Flavored Tobacco Products, As Of October 2004

Flavored product	Brands	Manufacturer
Cigarettes	Exotic Camel: Mandarin Mint, Twist, Izmir Stinger, Crema, Dark Mint Exotic Camel Limited Distribution: Beach Breezer, Margarita Mixer, Bayou Blast, Back Alley Blend, Kauai Kolada, Twista Lime, Midnight Madness, Winter MochaMint, Warm Winter Toffee Salem Silver: Cool Myst, Fire and Ice, Dark Currents, Deep Freeze	RJ Reynolds Tobacco Company
	KOOL Smooth Fusions: Midnight Berry, Caribbean Chill, Mocha Taboo, Mintrigue	Brown and Williamson
	Sweet Dreams—Cocktail Cigarettes: vanilla, chocolate, Midnight, mint, herbal, cherry	Kretek International Inc.
	Liquid Zoo: coconut, strawberry, Cool Mint Djarum: cherry, vanilla	Kretek International Inc. P.T. Djarum
Smokeless tobacco	Rooster: Bold Wintergreen, Icy Mint Skoal: berry blend, cherry, mint, vanilla, apple, spearmint Copenhagen: Black Bourbon Revel (PREP ^a oral smokeless product, low TSNA): mint, wintergreen, cinnamon	U.S. Smokeless Tobacco Company
Cigars	Flavors by CAO: Moontrance (exotic fruit and bourbon vanilla), Earth Nectar (Tuscan flavours and infused chianti), Gold Honey, Eileen's Dream (white chocolate truffle and Irish cream), Bella Vanilla (pure Madagascar vanilla)	CAO
Tatiana (Cojimar I Sambu	Chevere Ice Cream Flavored: amaretto, Irish cream, vanilla, rum Tatiana Classic: vanilla, rum, cinnamon, honey, cherry	Nestor Plasencia Don Lino Cigars
	Cojimar Flavored Cigars: cherry, vanilla, rum, cognac, peach,	Cojimar
	Sambuca, amaretto, chocolate, cinnamon, mint Al Capone: Slims Rum Dipped, Sweets Cognac	Al Capone Cigars
Cigarette rolling paper	Juicy Jay's: cotton candy, blackberry brandy, green apple, fudge, candy cane, Sizzling Bacon, bubble gum, marshmallow, raspberry	HBI International
	Liquid Zoo: coconut, strawberry, Cool Mint	Kretek International Inc.

SOURCES: RJ Reynolds Tobacco Company, "Camel Smokes," www.smokerswelcome.com/CAM/ dtclogin.jsp?brand=CAM (23 May 2005); Campaign for Tobacco-Free Kids, "Big Tobacco Still Targeting Kids," 17 September 2004, www.tobaccofreekids.org/reports/targeting (23 August 2005); "Trinkets and Trash: Artifacts of the Tobacco Epidemic," www.trinketsandtrash.org (23 August 2005); RJ Reynolds, "Salem Access," www.smokerswelcome.com/SAL/dtclogin.jsp?brand=SAL (23 August 2005); My Cigarettes. www.mycigarettes.com; U.S. Smokeless Tobacco Company, www.ussmokelesstobacco.com; HBI International, "Juicy Jay's Rolling Paper," www.hbiinternational.com/index.html; CAO Cigars, "Flavours by CAO," www.flavoursbycao.com; Cigars International, www.cigarsinternational.com; Cigar Hut, www.cigarsforless.com; and Rolling Paper Warehouse, www.rollingpaperwarehouse.com.

Study Methods

The study draws on findings from internal tobacco industry documents, U.S. patent awarded and pending applications, and a physical examination of Camel Exotic Blend cigarettes. Internal document research was conducted through a Web-based search of tobacco industry document collections made publicly available through the 1998 Master Settlement Agreement (MSA) between the state attorneys general and major U.S. tobacco

manufacturers. The collections are updated on an ongoing basis and as of December 2004 housed more than seven million documents.³ We used the U.S. Patent and Trademark Office Web site to obtain issued patent awards and published patent applications.

Documents were identified through word searches (such as flavor, young, youth, candy, sweet, taste, pellet, preference) on both an index and the full text of the documents. A document was considered relevant if it described the use of flavors and flavor technology in the

^{*}PREP is potentially reduced exposure product. TSNA is tobacco-specific nitrosamines.

development of products targeting new and younger smokers. Identified documents were surveyed for recurring authors, named persons, keywords, and project names and codes that might reveal further avenues for retrieval. These searches resulted in a final set of approximately 120 relevant documents, ranging in date between 1969 and 2001.

Patents were identified using keyword searches (such as flavor delivery, filter) and were considered relevant if they described flavor delivery systems used to mask the taste or odor of tobacco smoke. A physical examination of the filters of various Camel Exotic Blend cigarettes was performed to identify the presence of a unique flavor-delivery pellet as described in U.S. patents and within the internal documents.

Results

■ Using flavors and flavor concepts to target youth. Cigarette manufacturers apply a variety of flavor additives to nearly all products, but only menthol, which "redefine[d] the smoking experience" more than forty years ago, has proved successful as a basis for marketing a cigarette brand by its flavor. Nonetheless, the concept of flavored cigarettes as a strategy for expanding the cigarette market has been revisited periodically over many years. For example, an internal Philip Morris (PM) presentation in 1992 discussed the benefits of flavored cigarettes, noting that

there has been a flavor-variety explosion in virtually every category of consumables except cigarettes. ...New flavors could cut across current and menthol segments, creating a new category. ...The concept (new flavors) could have the potential to be the most innovative change in cigarette marketing, reviving taste enjoyment and conscious purchase—selection excitement."⁵

Exhibit 2 presents examples of flavors explored by the tobacco industry in concept and cigarette prototype testing. It should be noted that industry research on flavor development has examined many of the same flavors found in today's products.

Internally, the appeal of flavored cigarettes has long been associated with specific con-

sumer populations, particularly young and novice smokers.6 For example, Brown and Williamson's (B&W's) consumer research in 1984 revealed notable agreement among respondents that flavored cigarettes would be much more popular among young and inexperienced smokers. Echoing the sentiments of the PM presentation quoted above, a 1993 Lorillard document observed: "Growing interest in new flavor sensations (i.e. soft drinks, snack foods) among younger adult consumers may indicate new opportunities for enhancedflavor tobacco products that could leverage Newport's current strength among younger adult smokers. As summarized in an undated RIR document describing the early development of flavored cigarettes: "Flavored cigarettes appeal to women...[and] younger smokers."93

Internal studies of differences in taste and flavor preferences by age group confirmed that younger smokers are more open to unique and exotic flavors than their older counterparts. A 1984 B&W Taste Segmentation study suggested that 28 percent of young smokers (under age 35) preferred robust tastes, compared with 21 percent and 12 percent of smokers ages 35–54 and age 55 and older, respectively. Younger smokers (22 percent) preferred fruit flavors more than those ages 35–54 (20 percent) and age 55 and older (13 percent).

Industry research findings suggest that young and novice smokers also might be especially vulnerable to product benefits related to flavored cigarettes. In 1992 PM tested several flavors among young adult smokers (male, ages 18–24; female, ages 18–34) and identified a number of possible consumer benefits, including increased social acceptance via pleasant aroma and aftertaste, increased excitement (for example, sharing flavors), smoking enjoyment, and a "high curiosity to try factor." Il

Young adult smokers represented an emerging "corporate priority" beginning in the late 1980s as an engine for industry market growth. In a report titled "Products of the 90's," RJR authors emphasized the need to target products toward young smokers, and specifically to ensure "that conventional products

EXHIBIT 2 Examples Of Flavors Used In Industry Concept And Prototype Testing

Flavors	Project title	Company, date	Description	Outcome
Anise, clove, cinnamon, spearmint, wintergreen	Project FX (flavoring exploratory)	RJ Reynolds, 1983	Identify flavorants to improve nonmenthol smoking experience through improved delivery or new benefits (fresh breath)	Low level of clove rated highest, but all prototypes rated low; high-level cinnamon/ anise lowest ratings
Apple, spice, lemon, liquor, nut, coffee, chocolate	Brand Choice Model of the Cigarette Industry	Brown & Williamson, 1982	Quantitative analysis of alternative flavors	Liquor and spice flavors had highest potential
Brandy	Project Prestige Family (PF)	RJ Reynolds, 1982	Brandy-flavored prototypes testing	Enhanced taste/flavor and mildness were key factors in product acceptance, not brandy flavor
Chocolate mint	Project Chocolate Mint (CM) and Salem (mintier) Aftertaste (AT)	RJ Reynolds, 1982- 83 and 1991-92	Increase social acceptability by addressing aftertaste, breath, aroma	CM: Prototypes were rated higher than Camel Lights control AT: Products did not meet aftertaste and acceptance measures; recommended increasing levels of CM, menthol
Clove, chocolate, coconut, fruity, popcorn, ginseng, minty menthol	Distinctive Flavors	Philip Morris, 1984-85	Develop distinctively flavored cigarettes for broad appeal or limited market segments	Flavors were developed and found to be acceptable to consumers
Lemon and mint	Newport flavor enhanced line (Newport "NFL")	Lorillard, 1991	Develop flavor-enhanced Newport extension targeted at young adult smokers seeking refreshment pleasure	Panel testing showed that mint was better proposition; mid/high-level products tested well; mint taste not identified in products; research planned for high mint levels (Wild Mint)
Orange, marshmallow, tutti-frutti, crème de menthe, cherry	New flavors	Lorillard, 1978	Exploratory focus-group research on new flavors	Market for flavored low- tar cigarette

SOURCES: B.W. Zabel, "New Brands Exploration Process. New Taste/Sensation Exploratory," 8 May 1987, Bates no. 505893133-505893146; RJ Reynolds, "New Brand Task Force," 8 May 1987, Bates no. 509363539-509363549; B.W. Zabel, "New Brands Exploration Process. Fresh Aftertaste Exploratory, Problem Definition and Initial Research Framework," 18 February 1987, Bates no. 505893003-505893017; Brown and Williamson, "Long-Range New Product Development Consumer Research Review," 19 March 1985, Bates no. 670540379-670540407; E. Fackelman et al., "Marketing Development Proposal (Mdd #83-41106): Social Acceptability/Project CM Focus Groups," 11 April 1983, Bates no. 502782865-502782868; K.L. Wood, "Product Research Report: Salem Futures/Project AT Prototype Screening," 20 December 1991, Bates no. 508275463-508275510; M.L. Smith, "Aftertaste Projects," 10 June 1992, Bates no. 511022566-511022568; Lorillard, "Newport 1993 Strategic Marketing Plan," 25 September 1992, Bates no. 93335928-93335994; Lorillard, "Summary Report: New Flavors Focus Group Sessions," August 1978, Bates no. 85093450-85093480; Lorillard, "Newport 'NFL' Basis of Interest," 10 December 1991, Bates no. 82794230-82794232; and J. Hearn et al., "Distinctive Flavors 841000," 29 October 1984, Bates no. 2001115431-2001115432. All are available at the Tobacco Documents Online Web site, tobaccodocuments.org, searchable by Bates number.

have appeal to 18-24 year olds," as well as to current products." RJR's flavor development provide "choices which are very different from

targeted full-flavor low-tar (FFLT) male and

female smokers ages 18-34, "given their demonstrated behavior in compromising traditional tobacco taste and the strategic opportunity to the company presented by younger adult smokers."14 Likewise, Lorillard's 1991 proposal for a flavor-enhanced refreshment line of Newport for young adult smokers stated: "Given young adults [sic] proclivity towards flavors in other categories (i.e. soft drinks, wine coolers), a flavor enhanced menthol product may appeal to these smokers."15

■ Next-generation flavor technologies. Flavors are traditionally added to tobacco or to cigarette paper, where they are then burned with the tobacco column in an attempt to enhance the tobacco flavor, mask unpleasant odor, and deliver a pleasant cigarette pack aroma.16 However, the tobacco industry pursued a wide range of newer nonconventional flavor technologies to address the

goal of unique flavor delivery. Researchers of RJR's Project CT (New Cigarette Taste/Sensation) recognized that "conventional products fall short on satisfying ideal smoker wants" in the area of new taste and/or sensation.17

Industry patents and patent applications describe a range of new technologies to deliver flavors for use in tobacco products. For example, a 2001 U.S. patent awarded to RIR describes substances that can be used as cigarette filter additives in the form of polyethylene strands or as cigarette wrapper or packaging additives.18 A 2003 patent awarded to B&W describes a flip-open box with microencapsulated flavor release.19 RJR patents highlight technology including pellets and low- and high-density rods inserted in cigarette filters that contain smoke-modifying agents such as flavorants and provide for wellcontrolled flavor delivery.20

New flavor delivery systems were hypothesized to be more effective than traditional topdressing methods (that is, flavors added directly to the tobacco) by increasing stability,

consistency, and shelf life.21 For example, filter flavor delivery systems may impart flavors more efficiently because the flavors are not altered by combustion.²² A 1986 document ascribes a variety of other advantages to "new generation" flavor-enhancing technologies including selective placement within the cigarette and controlled (timed) release.23

In a 1988 RJR report identifying young adult smokers as RJR's "most critical strategic need," product concepts targeted at smokers

"The proliferation of

new flavored brands

comes at a time

when advertising and

marketing

restrictions have

made it more difficult

to target young

smokers."

ages 18-24 included aftertaste, tobacco satisfaction, and menthol aftertaste and aroma. The product technology proposed to address these areas included nonconventional methods such as polymer pellet technology (PPT).24 A flavored pellet (polyethylene bead) inserted in the filter was designed to provide controlled release of flavor for delivery to the smoker.25

Filter pellet technol-

ogy and today's cigarettes. This past research on flavor technology was directly linked to the development of today's flavored cigarettes. In 1994, an RJR researcher wrote: "We worked on this [high density polyethylene (HDPE) filter pellet] for Chelsea [brand] in 1989. ... Sometimes old projects are worth recycling as the marketplace changes."26 RJR used filter pellet technology under several projects (such as Fresh Aftertaste [FAT], New Cigarette Taste/Sensation [CT], and Tomorrow's Female [TF]), many of which targeted young adult smokers (Exhibit 3).

Early prototypes using embedded spearmint pellets increased the perceptions of sweetness in sidestream and exhaled mainstream smoke.27 In 1989, however, aging studies under Project TF indicated problems with flavor migration, and the pellet was not pursued beyond prototype testing.28 RJR revisited PPT in the early 1990s, exploring ways to deter flavor migration.²⁹ By 1999 a flavored pellet filter prototype had been developed, which included traditional cocoa top dressing in com-

EXHIBIT 3

Examples Of Filter Pellet Technology Used in RJ Reynolds Flavor Research

Technology	Objectives/description	Project	Flavor	Outcome
Low-level menthol products delivered via a polymer bead implanted in the filter tow	To gain younger adult smoker (YAS) share	Project LLM (low-level menthol)	Menthol	Prototypes did not fulfill positive expectations of improved refreshing tobacco taste; technology pursued for future products
Controlled-release (polymer bead) technology and flavored top dressing	Provide new taste/ sensation to increase taste enjoyment of smoking	Project CT (New Cigarette Taste/ Sensation), 1987	Chocolate mint, brandy, orange, milk chocolate, whiskey, toffee, lemon, clove	Chocolate mint and brandy evaluated initially for Project CT
Menthol in top dressing and filter pellets with menthol additional flavors	Use new technology to achieve major breakthrough in smoking refreshment for Salem	Project FT (Menthol Twist), 1987	Cola, orange/ lemon, mint, Cinnanint	Positive results using pellet insertion and menthol top dressing in first and last puff of menthol, coolness, fresh aftertaste
Three controlled-release technologies: microencapsulated polymer-based flavor fibers and pellets inserted in filter, and tobacco-based flavor pellets inserted in rod	To offer a satisfying cigarette that leaves a clean taste and feeling in the mouth	Project FB (Fresh Aftertaste), 1987	Tropical fruit, sweet and spicy, cinnamon apple, cola, cinnamon, citrus, Cinnamint	Results indicate further aftertaste work on citrus, cinnamon apple, Cinnamint
Polymer-based flavor pellets inserted into the filter	Provide pleasant/fresher aftertaste among male smokers; qualitative research to evaluate prototypes among males (ages 18-24, 25-34)	Project FAT (Fresh Aftertaste), 1989	Apple, cola, whiskey, anise, gin, plum, prune, orange, lemon	Aftertaste benefit to target smokers when used as an improvement to an existing brand; plum, apple, FFAT (Filter Flavor Attribute Threshold) M-1 best potential for improving aftertaste

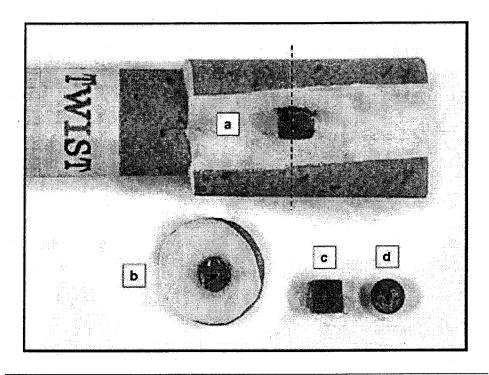
SOURCES: RJ Reynolds, "Project CT," December 1987, Bates no. 507372138–507372156; B.W. Zabel, "New Brands Exploration Process. New Taste/Sensation Exploratory," 8 May 1987, Bates no. 505893133–505893146; Y.M. Jones, "Learning for Project LLM/KN/FAT," 26 April 1988, Bates no. 506511955–506511962; J.L. Lawson, "N.B.E.P. Status Summary Sheets (Revised 6/9/87)," 9 June 1987, Bates no. 505623542–505623559; S.H. Douglas, "New Technology Exploration Process: Project FAT Qualitative Research (Atlanta, Ga)," 8 May 1989, Bates no. 507126759–507126764; RJ Reynolds, "Project LLM (Pellet Insertion)," 1988, Bates no. 508976790–508976792; E.M. Paul, "Product Research Report. Project FT 'Menthol Twist' Focus Groups," 6 July 1987, Bates no. 506450424–506450434; and RJ Reynolds, "Project CT," 15 May 1987, Bates no. 505777991–505777999. All are available at the Tobacco Documents Online Web site, tobaccodocuments.org, searchable by Bates number.

bination with an orange-flavored high-density pellet.³⁰

Flavor filter pellets were a key technology enabling the introduction of a variety of "exotic" Camel flavors in 2000, pursued internally as the "Camel Twist Project." A 2001 RJR document, prepared to respond to consumer inquiries regarding flavor delivery in the

Camel Exotic Blends, describes the pellet as intended "to protect the flavor" and as made of "the same material that milk jugs are made of." Although these pellets are not visible to the consumer, a physical examination of the filter confirms the placement of the pellet in certain Camel Exotic Blends such as Twist (Exhibit 4).

EXHIBIT 4
Camel Twist Cigarette Filter Pellet



SOURCE: Authors' research.

NOTES: a. View of a Camel Twist cigarette filter that has been opened to reveal a flavor-dispensing bead. The bead is a cylinder (approximately 2.5 x 3.0 mm in size) having a central core. The dotted line denotes the region of a Twist cigarette that has been bisected for view b. b. On-end view of a section of a Twist filter that illustrates the location of the bead and the core of the bead. c. Longitudinal view of a bisected bead. d. On-end view of the midsection of a bead.

Camel Exotic Blends that contained a blue flavor-delivering pellet were Twist, Mandarin Mint, Izmir Singer, Dark Mint, and Aegean Spice. The pellets present in these different brands had the same appearance (color, size, and shape) and could not be distinguished with the naked eye.

Unfortunately, our review of internal documents identified few internal evaluations of the new product technologies used in recent flavored brands. In 2000, PM conducted a competitive subjective evaluation of certain Camel Exotic Blends (for example, Crema, Twist). Among the characteristics reported were consistently low impact and low or medium mouth and throat response, as well as specific points of product differentiation in-

cluding sweet, creamy vanilla notes (Crema); citrus notes (Twist); low in tobacco character (Samsung); or nondistinctive, bland, and smooth (Rare).³³ In 1996, RJR evaluated the possibility of accidental dislodging of the pellet with high air flow, finding that increased air volume reduced movement of the pellet.³⁴ In earlier research (1987), precise placement of a polyethylene bead in the filter was recommended: "Optimal location is required in order to prevent possible inhalation of the intact bead by the consumer."³⁵

Discussion

The proliferation of new flavored brands comes at a time when advertising and marketing restrictions in the 1998 MSA have made it

more difficult to target young smokers. These increased restrictions may be prompting manufacturers to turn to product innovations to attract new smokers. As observed by Gregory Connolly, the packaging and imagery of flavored products serve as powerful new sources of promotion and advertising, particularly when coupled with tailored advertising and marketing found on interactive Web sites (such as Camel Smokes and Salem Access) that further capitalize on product novelty.36

The limited seasonal availability of these flavored products provides further evidence of their role as "starter" cigarettes rather than as regular brands intended to create and foster brand loyalty.

Published research demonstrates a compelling link

between youth-targeted product innovations and smoking behavior.37 For example, flavored cigarettes can promote youth initiation and help young occasional smokers to become daily smokers by reducing or masking the natural harshness and taste of tobacco smoke and increasing the acceptability of a toxic product.38 Yet the potential influence of flavored cigarettes on youth initiation might go unrecognized without efforts to increase awareness.

Coordinated public education and community action are needed to inform youth about tobacco industry deception and confront the tobacco industry, especially in the absence of governmental regulation. A recently produced anti-smoking advertisement on flavored cigarettes released by the American Legacy Foundation as part of its "Truth" mass media campaign provides one example of aggressive public awareness strategies. Community groups must also be vigilant and fight back against manufacturers who target high-risk groups with flavored brands. As evidenced by the recent success of the Chicago-based coalition that ended B&W's Kool Campaign promoting flavored brands, community action can be powerful and effective.

Regulatory action is an appropriate response to the serious public health concerns raised by the introduction of new product delivery technologies, such as the flavor pellet in the Camel Exotic Blend Twist filter. Little is known regarding the delivery characteristics or possible health risks associated with these products. The use of flavor technologies has not been disclosed to public health officials, and in the case of the flavored pellet, the device is concealed from the consumer, unless the pellet is dislodged from the filter and exposed.39 The limited availability of internal in-

dustry testing clearly underscores the need for independent studies to assess the effects of new technologies on the delivery and toxicity of these new products.

Pending federal legislation would require disclosure of additives to the U.S. Food and

Drug Administration (FDA) and regulation of tobacco products, including a prohibition of candylike flavors. A number of states (including New York, Minnesota, West Virginia, Connecticut, Illinois, North Carolina, and Texas) have also introduced legislation to ban candy-flavored cigarettes. Regulation of product additives or technologies also could be warranted in the case of evidence substantiating increased health risks or influence on

Although the MSA ban on youth targeting was designed to protect youth, past research suggests that major tobacco manufacturers have failed to comply with the MSA's youthtargeting prohibitions regarding magazine advertising of cigarettes.40 Evidence demonstrating that new brands and promotions target and promote youth smoking could prompt the state attorneys general to investigate violations of the MSA and determine whether the sale of such products violates fair trade practices under state consumer protection law. Thus, in addition to promoting public awareness and taking action at the community level in response to youth-targeted products, policymakers should support legislation prohibiting manufacturers from adding these candylike flavors to tobacco products.

"The use of flavor

technologies has not

been disclosed to

public health

officials."

The authors are grateful to Mitch Zeller for his suggestions with regard to the discussion. This research was conducted at the Harvard School of Public Health and funded through National Cancer Institute Grant no. ROI CA87477-05 and American Legacy Foundation Grant no. 6212.

NOTES

- D. Simpson, "USA/Brazil: The Flavour of Things to Come," *Tobacco Control* 13, no. 2 (2004): 105– 106; and G.N. Connolly, "Sweet and Spicy Flavours: New Brands for Minorities and Youth," *Tobacco Control* 13, no. 3 (2004): 211–212.
- C.C. Berk, "RJ Reynolds Earnings Surged in Second Quarter," Wall Street Journal, 3 August 2004; and M. Beirne, "Tobacco: Craving Alternatives in a Thinning Market," BrandWeek.com, June 2004, www.vnuemedia.com/brandweek/features/superbrands/tobacco_01.jsp (23 May 2005).
- Tobacco Documents Online (TDO) Database, www.tobaccodocuments.org; Legacy Tobacco Documents Library, legacy.library.ucsf.edu; and British American Tobacco Document Archive (BATDA), bat.library.ucsf.edu.
- P.L. Aulbach et al., "Product Knowledge Seminar Spring 1990," 2 March 1990, Bates no. 503100002-503100189, tobaccodocuments .org/bw/350967.html (23 August 2005); and RJ Reynolds, "Project CT," 15 May 1987, Bates no. 505777991-505777999, tobaccodocuments .org/rjr/505777991-7999.html (23 August 2005).
- Philip Morris, "New Flavors Qualitative Research Insights," October 1992, Bates no. 2023163698–2023163710, tobaccodocuments.org/pm/2023163698-3710.html (23 August 2005).
- Lorillard, "Summary Report New Flavors Focus Group Sessions," August 1978, Bates no. 85093450-85093480; Brown and Williamson, "Marketing Innovations Inc. Project Report: Youth Cigarette—New Concepts," September 1972, Bates no. 170042014, tobaccodocuments .org/bw/1023751.html (23 August 2005); Y.M. Jones, "Learning for Project LLM/KN/FAT," 26 April 1988, Bates no. 506511955-506511962, tobaccodocuments.org/rjr/506511955-1962.html (23 August 2005); and A. Lopez, "'New Flavor' Exploratory Research—Final Report," 18 September 1992, Bates no. 2060189053-2060189058, tobaccodocuments.org/pm/2060189053-9058 .html (23 August 2005).
- T.G. Sommers, "Topline: Alternate Cigarette Flavors," 18 January 1984, Bates no. 537004281–537004282, tobaccodocuments.org/bw/163368.html (23 August 2005).

- Lorillard, "Newport 930000 Strategic Marketing Plan," 25 September 1993, Bates no. 93335928-93335994.
- RJ Reynolds, "Flavored Cigarettes: A Review," No date, Bates no. 501891528-501891544, tobaccodocuments.org/rjr/501891528-1544.html (23 August 2005).
- 10. Brown and Williamson, "Taste Segmentation Study Final Report," May 1984, Bates no. 538003902–538003933, tobaccodocuments.org/bw/164129.html (23 August 2005).
- Il. Philip Morris, "New Flavors Qualitative Research Insights."
- RJ Reynolds, "Younger Adult Smoker Opportunity," 1988, Bates no. 506560179–506560215, tobaccodocuments.org/rjr/506560179-0215.html (23 August 2005).
- RJ Reynolds, "Products of the 90's," 8 July 1988, Bates no. 512466247-512466305, tobacco documents.org/rjr/512466247-6305.html (23 August 2005).
- 14. RJ Reynolds, "Project CT," May 1987.
- Lorillard, "Newport 'NFL' Basis of Interest," 10
 December 1991, Bates no. 82794230–82794232, tobaccodocuments.org/lor/82794230-4232.html (23 August 2005).
- Aulbach et al., "Product Knowledge Seminar Spring 1990."
- RJ Reynolds, "Project CT," December 1987, Bates no. 507372138-507372156, tobaccodocuments .org/rjr/507372138-2156.html (23 August 2005).
- W.M. Coleman, RJ Reynolds Tobacco Company, assignee, "Method of Providing Flavorful and Aromatic Compounds in Absence of Reducing Sugars," U.S. Patent no. 6, 325, 860, 4 December 2001.
- R.P. Dennen, Brown and Williamson, assignee, "Flip Open Package with Microencapsulated Flavor Release," U.S. Patent no. 6,612,429, 2 September 2003.
- 20. C.C. Green Jr. et al., RJ Reynolds Tobacco Company, assignee, "Rods Containing Pelletized Material," U.S. Patent no. 4,862,905, 5 September 1989; H.I. Rutherford, International Flavors and Fragrances, Inc., assignee, "Method for Imparting Flavors and Aromas, Flavor-Imparting Articles, and Methods for Preparation and Use Thereof," U.S. Patent no. 5,070,891, 10 December 1991; and B.L. Sainsing and M.F. Dube, "On Tuesday, January 19, 1988, Barry Sainsing and Myself Met with You, Howard Rutherford, Craig Warren, and Frank Davis at Your Facility in Union Beach, New Jersey," 20 January 1988, Bates no. 513232654-513232655, tobaccodocuments .org/product_design/513232654-2655.html (23 August 2005).
- 21. RJ Reynolds, "Project CT," May 1987; and M.F.

- Dube, "Weekly Highlights," 22 March 1988, Bates no. 506448917-506448919, tobacco documents.org/tjr/506448917-8919.html (23 August 2005).
- RJ Reynolds, "Project CT," December 1987; and H.C. Threatt, "Pellet Technology," 1996, Bates no. 528446992-6992, legacy.library.ucsf.edu/tid/ bfs15a00 (28 September 2005).
- RJ Reynolds, "New Brands: Opportunities and Supporting Technologies," 1986, Bates no. 505623778-505623805, tobaccodocuments.org/ rjr/505623778-3805.html (23 August 2005).
- 24. RJ Reynolds, "Younger Adult Smoker Opportunity."
- 25. RJ Reynolds, "N.B.E.P. Status Summary Sheets (Revised 2/27/1987)," Bates no. 507375486–507375514, tobaccodocuments.org/rjr/507375486-5514.html (23 August 2005); and B.W. Arzonico et al., "TF-4 Accelerated Aging Study—TF Products using Various Flavor and Packaging Systems to Retard Spearmint Flavor Migration," 11 October 1989, Bates no. 508295999–508296015, tobaccodocuments.org/rjr/508295999-6015.html (23 August 2005).
- T.L. Gentry and M.F. Dube, "C.W. Ehmann's Claims Ideation—11/21/94," 1994, Bates no. 512454860-512454880, tobaccodocuments.org/ rir/512454860-4880.html (23 August 2005).
- M.E. Stowe, "Weekly Highlights, Product and Applied Technology R&D," 27 July 1988, Bates no. 506539684–506539687, tobaccodocuments .org/rjr/506539684-9687.html (23 August 2005).
- 28. Arzonico et al., "TF-4 Accelerated Aging Study"; A.L. Robinson et al., "Review of Qualitative and Quantitative Research: Chelsea and Horizon," 29 October 1992, Bates no. 513502565–513502596, tobaccodocuments.org/rjr/513502565-2596.html (23 August 2005); and M.L. Wong, C.R. Ashcraft, and C.W. Miller, "Disclosure of Idea to Prolong Shelf Life of Flavored Pellet in a Cigarette Filter," 24 April 1991, Bates no. 511479824–511479825, tobaccodocuments.org/rjr/511479 824-9825.html (23 August 2005).
- 29. Wong et al., "Disclosure of Idea."
- F. Ken, "Flavored Pellet Filter Products Update,"
 July 1999, Bates no. 529218543–529218545,
 legacy.library.ucsf.edu/tid/swv05a00 (28 September 2005).
- Ibid.; and E.J. Sohn, "Flavored Strand/Pellet Production Equipment," 12 August 1999, Bates no. 521524895, tobaccodocuments.org/rjr/52152 4895-4895.html (23 August 2005).
- RJ Reynolds, "Approved Response for Consumer Inquiries Regarding Flavor Pellets in Some Styles of Camel Exotic/Spice Line—Twist, Izmir Stinger, Mandarin Mint, Dark Mint," 25 May

- 2001, Bates no. 525091272, tobaccodocuments .org/rjr/525091272-1272.html (23 August 2005).
- S. Tinsley, "Camel Exotic Blends—Subjective Evaluation," 28 January 2000, Bates no. 2078434658, legacy.library.ucsf.edu/tid/ fmm70c00 (28 September 2005).
- 34. T. Gentry, "Flavored Filter Pellet in FL325 Prototypes, White Space (Thai Silk Concept)," 25 April 1996, Bates no. 514839068, tobacco documents.org/rjr/514839068-9068.html (23 August 2005); and L. O'Connor, "Flavored Pellet Filters," May 1996, Bates no. 517875066-5072, legacy.library.ucsf.edu/tid/ems90d00 (28 September 2005).
- G.R. Dimarco, "R&rD Weekly Highlights," 1 May 1987, Bates no. 506464962–506464971, tobacco documents.org/rjr/506464962-4971.html (23 August 2005).
- 36. Connolly, "Sweet and Spicy Flavours." See, for example, the Camel Smokes site, www.smokers welcome.com/CAM/dtclogin.jsp?brand-CAM (23 August 2005); and the Salem Access site, www.smokerswelcome.com/SAL/dtclogin.jsp? brand-SAL (23 August 2005).
- G.F. Wayne and G.N. Connolly, "How Cigarette Design Can Affect Youth Initiation into Smoking: Camel Cigarettes 1983–93," Tobacco Control 11, no. 1 Supp. (2002): I32–I39; J.R. DiFranza et al., "RJR Nabisco's Cartoon Camel Promotes Camel Cigarettes to Children," Journal of the American Medical Association 266, no. 22 (1991): 3149–3153; C. Lovato et al., "Impact of Tobacco Advertising and Promotion on Increasing Adolescent Smoking Behaviours," Cochrane Database of Systematic Reviews 3 (2003), www.cochrane.org/reviews/en/ab003439.html (23 August 2005); and M. Wakefield et al., "Role of the Media in Influencing Trajectories of Youth Smoking," Addiction 98, no. 1 Supp. (2003): 79–103.
- 38. Wayne and Connolly, "How Cigarette Design Can Affect Youth Initiation into Smoking."
- 39. C. Conroy, "I Am Writing This Letter to You to Voice My Displeasure Recently while Smoking One of Your Camel Filter (Hard Pack) Cigarettes," 3 May 1999, Bates no. 522858245-522858246, tobaccodocuments.org/rjr/522858245-8246.html (23 August 2005).
- P.J. Chung et al., "Youth Targeting by Tobacco Manufacturers since the Master Settlement Agreement," Health Affairs 21, no. 2 (2002): 254– 263.